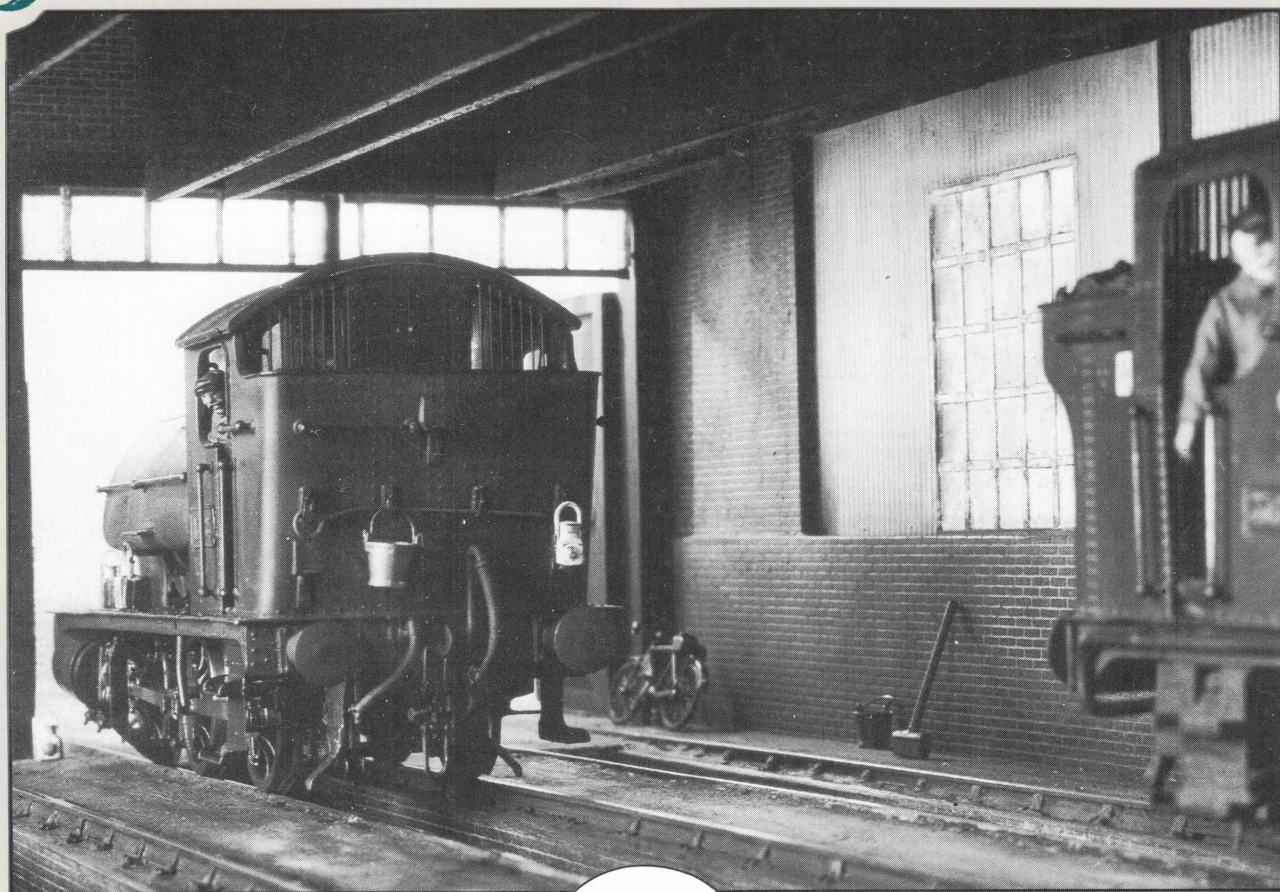


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# MODEL RAILWAY JOURNAL



No.109

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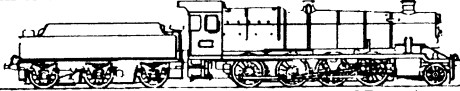
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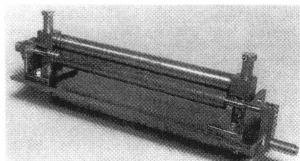
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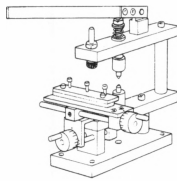
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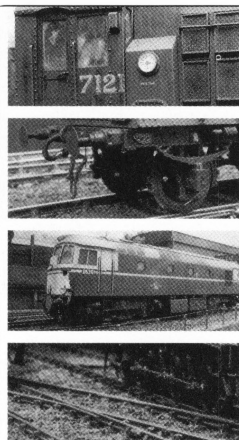
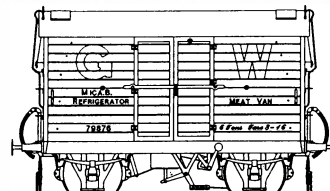
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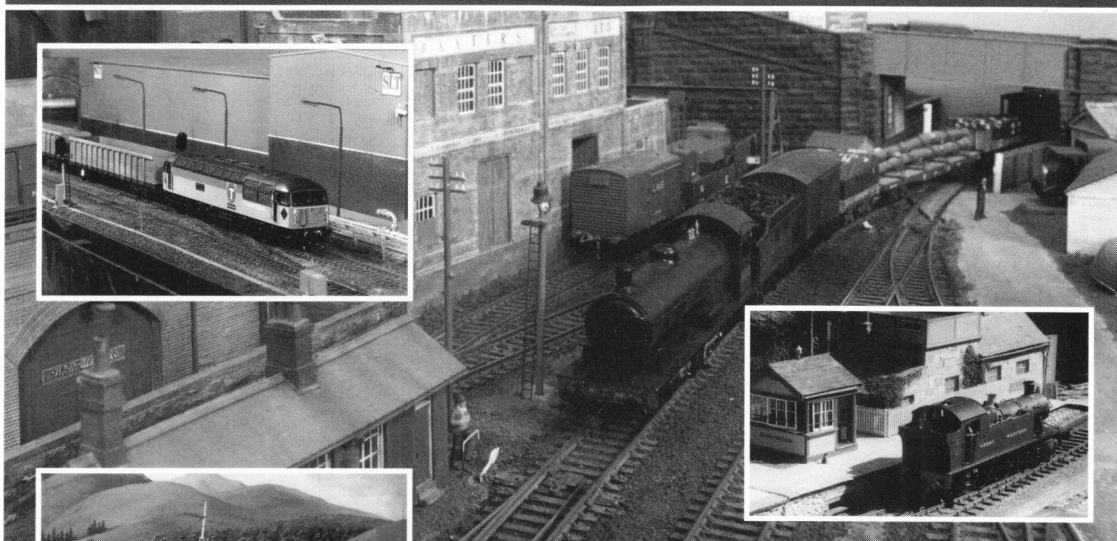
The Group publishes a quarterly Newsletter, and members are offered four meetings a year for contact and the exchange of ideas with like-minded modellers.



Further details are available via an SAE from:  
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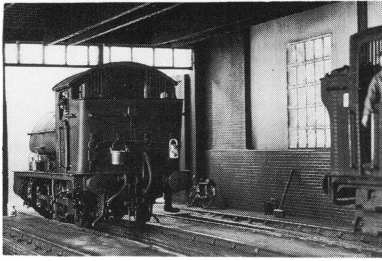
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Cover photo: John Dornom's 7mm scale shed interior.

## ... it's up to you.

After my initial editorial, I received letters from some who felt that MRJ and its contributors generally show an unfair leaning toward the steam era, and one inferred that I and my kind (?) were personally guilty of suppressing the aspirations of modern youth! At first I thought it was a wind-up, then perhaps that they were actually serious, and finally concluded that some folk really need to get out more.

I plan to build a medium size 7mm diorama featuring industrial diesel locomotives and hope one day to model South Eastern electric stock for another project. Similarly, the London Underground system has always intrigued me since childhood visits to the city and I might enjoy building examples of these in 7mm, particularly as I have never seen it done before, whilst the smell of steam locomotives still evokes strong emotions within and I shall always be drawn to them as a result. I could bore for England with the list of possibilities, but the point being made is that my personal preferences and likewise those of the rest of the team are pretty cosmopolitan, so we never feel constrained by narrow interests when considering material for publication. I know that Bob Barlow and Paul Karau were no less than thrilled with 'Ynsarwed Sidings' (MRJ No. 45) and 'Walford Town' (MRJ No. 70). Quality modelling of *any* chosen period, no matter what the source of motive power, will always be the rule of thumb. The reason why articles featuring diesels or electrics haven't appeared in their droves is simply due to their not being submitted in the first place, and if those who sent the letters criticising cared to offer articles and photographs of their models instead, we should be delighted to consider them for publication.

Aside from extracting articles from our ever-growing band of contributors, I also take time out to visit exhibitions, seeking items to feature in these pages, and my own observations certainly endorse those surveys which show a higher percentage of serious modellers favouring steam, if the balance on display is any guide. However, some of your letters suggest this bias is misleading and excellent examples of modern period modelling are stashed away in spare rooms and attics which never see the light of day at shows and our roving eyes therefore never espy. I can readily accept this, because a prime example of talent which nearly escaped unnoticed was John Dornom's remarkable 'Laira Depot'. Tucked away in his back bedroom until he finally let me see it and I twisted his arm to bring it out into the open, it could just as easily have been a diesel rather than steam era creation. For to me this wasn't important – its *quality* was the significant factor, not his choice of rolling stock.

The moral of this tale is simple – we cannot feature that which remains hidden, so if you have, or know others who have models or layouts which deserve attention, let us know. Sometimes, it's up to you.

*Martyn Welch*

# MODEL RAILWAY JOURNAL

Edited by Martyn Welch. Designed by Paul Karau.

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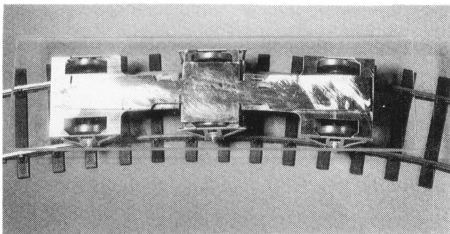
# SMALL SUPPLIER FORUM

## TRADE GRAPEVINE

SHERWOOD MODELS have released the first in a series of 4mm private owner wagons produced for them by Bachmann using their standard 7-plank wagon. They are lettered white on a bauxite background and represent two now defunct Nottinghamshire collieries. Priced at £5.95 including UK carriage, they are available from 831 Mansfield Road, near Daybrook, Nottingham, NG5 3GF (Tel: 0115 926 6290).

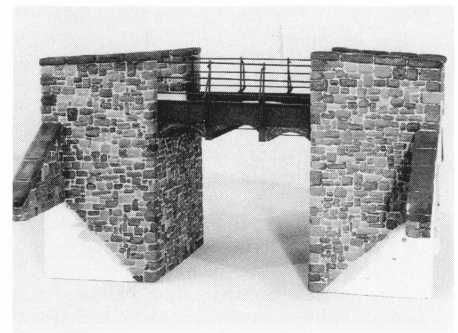
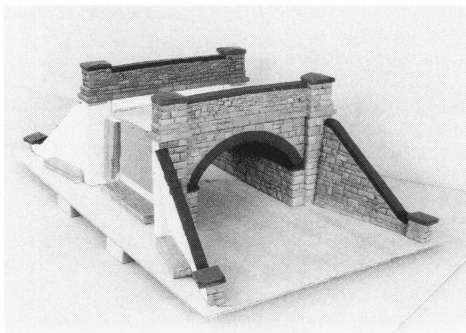
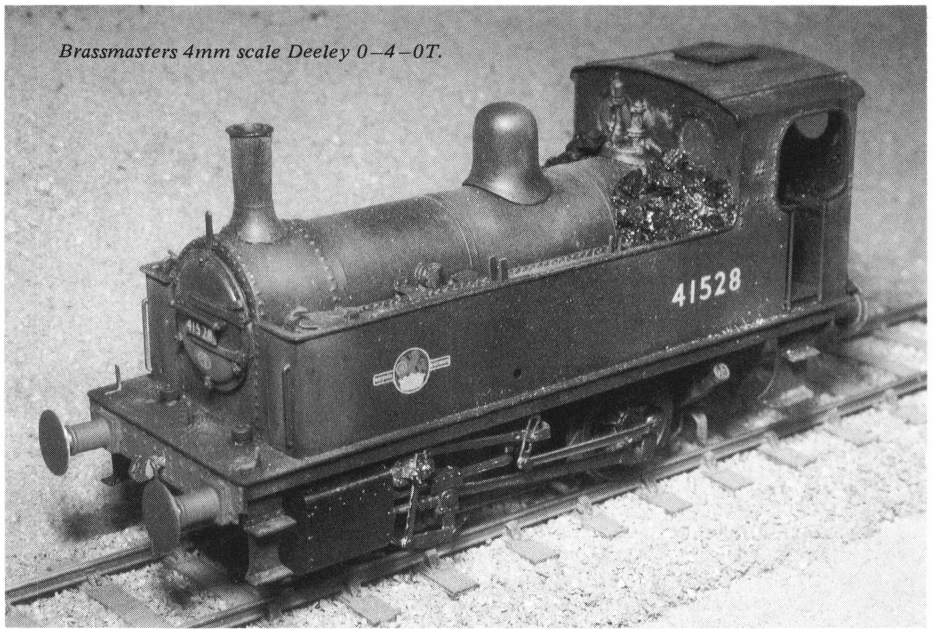
If you had been wondering what happened to the 7mm resin-bodied kits previously marketed by Tim Hughes under the Meteor label, the good news is that they are now in the safe hands of Adrian Swain at ABS MODELS in Poole. All of the 'milky bar' kits are being upgraded either with Adrian's own existing whitmetal castings, or by the introduction of newly mastered cast items designed specifically for the kit concerned. Similarly, new bodies to assorted diagram variations are to be introduced which will allow early and late types of various regional prototypes such as the LSWR WD-style wide-bodied brake van and the WD-built narrow-bodied version (sold to assorted pre-grouping companies after the First World War) to be constructed. Given the variety of diagrams which Adrian wants to cover, many of these kits will only be batch produced in quantities of 25 or 50, after which they will be re-tooled to cater for other diagram numbers and so on. Buy them when you see them, would be wise advice, if you want to ensure you can own a particular version before it is superseded and becomes unavailable. The majority of kits should be available in time for the 'O' Gauge Guild Spring Convention at Swindon in March, but they will only be available directly from ABS at shows or by mail order from him at 39 Napier Road, Poole, Dorset.

In MRJ No. 107, reference was made to a possible 4mm version of a Cleminson chassis being commercially produced and John Jennison of BRASSMASTERS advises us that they issued their own kit at Scaleforum last year, which sold out within the first hour. This and a second version covering other prototypes is now produced in etched brass, priced at



Brassmasters Cleminson chassis.

Brassmasters 4mm scale Deeley 0-4-0T.



Left: Enhance Ecosse Kit CRN/A – a masonry arch underbridge from the former Cardiff Railway, carrying a double-line railway over a road. It could also be used to bridge a single-line railway. £28.00 + P & P. Right: Kit BW382/A – a farm road overbridge (prototype near Ballywilliam, Co. Wexford). £34.90 + P & P.

£4.95 and another is scheduled soon for the S Gauge Society. MC002 is the RCH pattern covering GWR and NER, whilst MC001 is for MR, LSWR, GNR and others. Also new in 4mm is an ex-Midland Railway Deeley 0-4-0T enabling one of the initial or second batch to be constructed. Priced at £65 in etched brass, nickel silver plus lost-wax fittings, it may be built to any of the 4mm gauges. Finally, two lost-wax couplings designed to connect corridor gangway vehicles by a simple pin and socket mechanism which also includes a representation of the vacuum and steam hoses, have been released. Costing £2.95 each, one represents a screw coupling, the other a buckeye type. For details send an SAE to PO Box 1137, Sutton Coldfield, West Midlands, B76 1FU.

PARKSIDE DUNDAS have just launched their new BR 12ft chassis in 2mm (Ref. PN03) priced at £3.20, plus two new wagon kits based upon this. They are the BR Grampus Ballast Wagon (Ref. PN01) and a BR 24.5 ton Mineral Wagon (Ref. PN02) costing £4.75 each. Their first new 4mm GWR wagon kit for some while, a Beetle Prize Cattle Van (Dia. W7) has arrived. The prototype came in a batch of ten built to an Edwardian design in the 1920s, which survived well into BR days, and the kit (Ref. PS64) costs £6.95. For the 7mm modeller,

£24.95 buys another item fresh from the factory in the form of an LNER/BR Insulated Fish Van (Ref. PS36) representing the LNER van rebuilt in early BR days with insulated body and recessed doors. Forthcoming kits include a 4mm BR Palvan, 7mm BR Sand Wagon, and in 2mm the return of the BR Pipe Wagon plus the GWR 20 ton Coal Wagon. Also to be added is a coal load for the Bachmann 16 ton Coal Wagon, and details of this and others in their range can be found at Millie Street, Kirkcaldy, Fife, KY1 2NL (Tel & Fax 01592 640896).

Under his ENHANCE ECOSSE modelling services, Richard Chown has introduced a range of 7mm scale kits for both under and over bridges. Using etched brass and whitmetal for the metal components and cast plaster-of-Paris for brick and masonry work (resin castings are available for outdoor use), all are based on actual prototypes. Further details of the complete range are available from: Woodlawn, Philipstoun, West Lothian, EH49 6RH (01506 834105).

Bob Barlow originally brought John Isherwood's CAMBRIDGE CUSTOM TRANSFERS to our attention in an earlier MRJ and John advises us that the computer

Continued on page 76.

# SUPER 60



A large tail-chaser layout is in full swing at a provincial exhibition. It depicts a busy interchange station, German outline, HO scale. International expresses call at the platforms while, on the avoiding lines, lengthy freight trains glide magisterially past. Though the models are highly prototypical in the way they look and, especially, in the quiet and purposeful manner in which they move, everything is off-the-shelf proprietary and, as far as I can tell, unmodified in any way. The trains could be working automatically, because the operators – if there are any – are well out of sight and have no need to intervene, even with the shunting and marshalling movements that form an integral part of the presentation. Such confidence in the running of their models is well placed, though the layout is bristling with complex pointwork and has a full overhead catenary system. I have only the mildest interest in European railways, but I am so impressed by what I see that I watch the whole cycle through from start to finish. Even then, I am reluctant to leave.

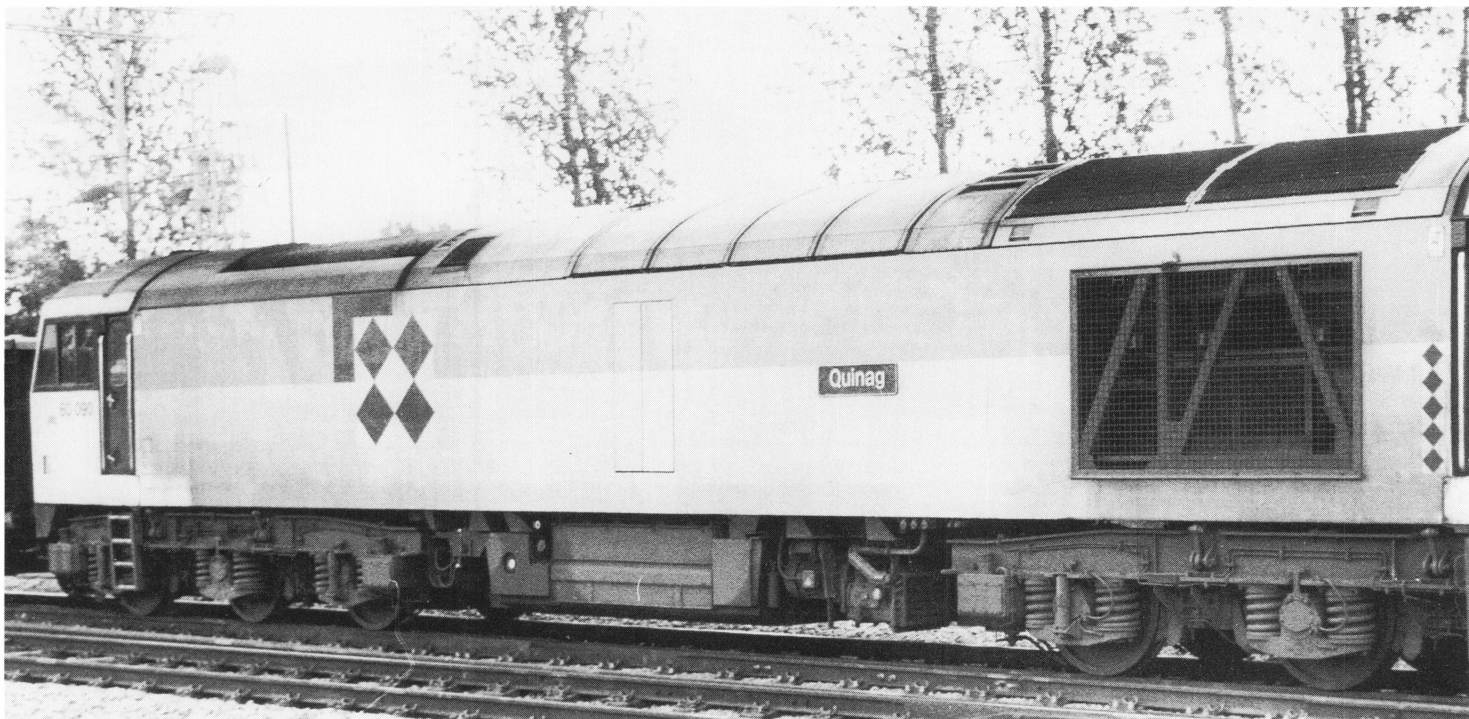
*According to TIM SHACKLETON, much of the current British outline RTR diesel traction is mutton dressed as lamb, with state-of-the-art exteriors, but obsolete inner workings. He investigates a mechanical upgrade along with some cosmetic surgery for a popular prototype:*

In an adjacent hall I find another layout, British Rail in the blue diesel era, EM gauge, again RTR-based. I can hear the rasp of the mechanisms from twenty feet away, even above the excited hubbub of the Sunday-morning family audience. Coming closer, I see the engines have been rewheeled and reworked as far as exterior detail is concerned, but the way they negotiate the big oval leaves a lot to be desired. Slow running is hesitant, and the jitters are transmitted to the stock, making it clatter and surge. As long as the trains keep moving at a reasonable rate everything seems to be all right, but even in mid-flight a loco will occasionally stop dead for no reason, and have to be prodded back to life. There is none of the effortless starting and stopping of long, heavy trains that is seen on the German layout, while shunting seems to be regard-

ed as a necessary evil, performed at ferocious speeds. At any one moment, three or four members of the operating team will be fiddling with something that is playing up. Oddly enough, no one seems in the least bit bothered by this. Maybe the spectators are too polite to pass judgement, just as their English reticence prevents them commenting on the excellent running of the continental trains. I just feel embarrassed by the whole performance, and move on.

In the field of diesel and electric traction, bought-in RTR models like these are very much the name of the game, whether they're British or American or German or Italian in origin. They provide the jumping-off point for finescale modelling as well as a focus for the train-set and collector markets. And yet, while I have admired some exquisite detailing of





British-outline proprietary locomotives, I see little to suggest that their builders have an inclination to do much about the standard of running. Most of us routinely fit steam locos – even those that use reworked RTR body mouldings – with compensated chassis, coreless motors, high-efficiency gearboxes and other refinements. Why should our attitude to diesels be different? Why aren't more people ripping apart their Lima DMUs and Hornby class 25s to see what they can do to make them run better?

When I build a locomotive, I want a model that not only looks good, but reflects the performance characteristics of the prototype – which I take to mean that it is extremely powerful for its size, works quietly and smoothly, starts at a crawl, moves at a fairish lick but can also go very, very slowly without faltering. This is how most of us, I imagine, expect our steam locomotives to perform, and yet we seem to accept something less from diesels – probably because we lack the know-how to do anything about the factory-fitted mechanisms. We can, to a limited degree, improve the running of Lima and Hornby products by paying close attention to pick-ups, lubrication and adhesive weight, but their face-commutator motors and clumsy gear towers, being cheap and expedient, are not designed for mechan-

ical fine tuning. Total replacement is usually the only answer, and in this article I'd like to show one way in which the running of RTR-based diesels can be improved out of all recognition, without costing the earth. The technology involved is proven and simple to install, the components are high quality, and the work involves a measure of improvisation that makes for enjoyable and highly creative modelling.

With the majority of imported models, of course, nothing much needs to be done to achieve the desiderata I have outlined. When we take the lids off, we see why the European and US brand leaders so consistently outperform their UK counterparts. The engineering of their drive trains is leagues ahead of our stuff – can motors, big flywheels, twin power bogies, all-wheel pick-up and sensible gear ratios are commonplace. This is what we ought to take as our benchmark, and I certainly wouldn't bother scratchbuilding diesel chassis if I could buy products like this over the counter, if only to strip them down and re-use the components in something else. But to date just one British RTR model – the Bachmann 'Peak' – has achieved a comparable level of on-the-road performance, and that only because the US-based manufacturer has cleverly recycled the chassis from an American Bo-Bo into a 1Co-Co1 configuration.

But the European stuff costs too much, the apologists say. This much is true. The superb running quality of Fleischmann and Roco – who, increasingly, are building for the American market as well – is bought at a price. Their drive trains are of the highest quality but the models are expensive, even allowing for the higher disposable incomes that other EC countries enjoy. In the American market, however, the economies of scale mean that silky running and affordable prices go hand in hand – the US-outline modeller, perhaps more than any other, enjoys genuine value for money from his diesel-outline models. At the popular end of the scale, he can buy a perfectly acceptable loco for less than we pay for an RTR coach.

In Britain, as economists frequently tell us, the years of recession have conditioned us to wanting everything at rock-bottom prices. In consequence, we'll stump up no more than half of what our EC confrères will readily pay for an off-the-shelf locomotive. But do we really get the value we think we do? I doubt it – in fact, I think we pay considerably more for less, pro rata. Our proprietary models are self-evidently done to a price, using common-user drive trains that were outdated twenty years ago. They survive over here, like some otherwise extinct species, either



because not enough people are prepared to pay for anything better, or because the manufacturers don't feel like offering it to us. Lima's dreadful 'pancake' motors, as a case in point, are unique to the UK – the models they make for other countries have can motors and all-wheel drive. Their older continental locos, which used to have the same drive trains as ours, have been retooled to bring them into line with the expectations of the increasingly sophisticated overseas market. Such a demand evidently doesn't exist on this side of the channel, where the punters appear willing to settle for third-rate products. They don't complain, they keep buying the stuff – why should the manufacturers change their policy? As the pioneer gutter-press journalist H.L. Mencken observed, no one went broke underestimating the taste of the public.

The outcome of this frustrating situation is that if we aspire to something better, and we want to stick with British prototypes, then we have to go it alone –

either by buying into some fairly expensive hardware, or by engineering our own solutions. Even for finescale modellers, these are two good reasons to stick – reluctantly perhaps – with what the trade deigns to give us, because there is no equivalent of a Comet chassis kit for a diesel model. From time to time I hear of clever things being done with adapted HO mechanisms but, as far as running gear goes, the after-market doesn't have a lot to offer – a few 'universal' two-axle motor bogies, some excellent and some truly appalling, and a limited range of replacement drive trains, each designed to fit a specific RTR model and, in consequence, rather pricey. Far and away the best of these is the Swedish-designed Dyna-Drive system, and in MRJ No. 84 I described its installation into a Lima class 37 diesel. After overcoming problems caused by a faulty clutch, I became firmly convinced of the merits of Dyna-Drive's inertia technology – much more effective, I believe, than any electronic simulation



Top left: A class 60 is a fair old length – slightly longer, in fact, than a Merchant Navy and exceeded only by the class 59s and 66s (and then by a matter of millimetres). By 1998, 60090 Quinag was one of the last to carry the now-obsolete coal-sector livery. The cabsides and ends had been cleaned but not the bodysides and roof, which show typical weathering patterns. Above: 60093 Jack Stirk pulling out of Marks Tey yard with a heavy sand train, with barely a whisper from its 3100hp Mirlees engine, on 19th February 1998. This engine carries an unusual hybrid livery of sector grey with Transrail branding, but without the 'Big T' vinyls.

of the way a real locomotive moves – and I began to investigate other applications for its precision components. I built a Dyna-Drive Bulleid Pacific and found that, even with the clutch temporarily removed, the engine really rolled along, with all the qualities of power and weight and mass and momentum that are evident in the prototype, but are rarely captured in small-scale models. And there have been other spin-offs, such as a model of the Brush *Falcon* that uses a scratchbuilt chassis with twin power bogies driven by cardan shafts from a centrally mounted can motor with flywheels at either end – exactly the same configuration, of course, that has been used for decades on brass diesels imported into the States from the Far East, and widely copied by American and European RTR manufacturers, if not our own.

All this R&D work seemed to be leading to something, but I didn't know quite what – except that very powerful motors and exceptionally large flywheels seemed to figure prominently. I decided to shuffle the various elements to see what else could be done, and to eliminate the drawbacks. The 37 was expensive, at least by British standards; the system used in the Bulleid was restricted in scope, as far as steam-outline models were concerned; the open-frame gearboxes in *Falcon* were noisier than I would have liked. Each individual model, however, had features that were well worth pursuing and so I chose, for this latest venture, to try and push things along a little further with another large, main-line diesel based on a 4mm scale RTR model.

I have neither the technical skills, the engineering background nor the workshop equipment to produce the kind of locomotive one might expect to see if Chris Pendleton or John Hayes were to turn their hand to diesel modelling (cue hollow laughter and pass the smelling salts). My inclinations veer heavily towards the artistic end of the spectrum, but I do like the feel of high-quality machinery in action, whether it's a mill engine or a mountain bike. And so, for this model, I wanted to see a demonstration of precision as well as performance. The technology, however, had to be something that even I could understand and whose cost would be reasonable – I aimed at a figure somewhere around the £60 mark for the mechanical and electrical components. Aptly enough, I decided that a class 60

might form an interesting basis for the experiment. It is a handsome machine, like many heavy freight designs, and it makes a nice model – the class 60s share, along with the Churchward 2–8–0s, the RODs and the 9Fs, a functionality and fitness for purpose that breeds a quiet elegance.

Among readers still unaware of Nationalisation, or even the demise of Brunel's broad gauge, there may be some puzzlement regarding the species of animal we're looking at, so perhaps I'd better quickly run through a little background information. Although some of them have seen no more than six years' service, these engines can already be seen as a curious blip in the history of British diesel traction. In the late 1980s, the search began for a new generation of high-horsepower, heavy-haulage freight locomotives to supplant the failure-prone class 56 and 58. The outcome was the class 60, although no one in BR (as it then was) actually asked for what they got. What freight-sector management really wanted was a hundred or so American-built class 59s like the ones that had been so successful for Foster Yeoman and ARC. An Anglicised version of the ever-dependable General Motors SD40#2, dating back to the late 1970s, the class 59s have performed flawlessly, day in, day out, on some of the toughest and most intensive workings ever diagrammed in this country. The Mendip aggregate companies were private businesses, however, and could buy what they liked; Railfreight was a state-run operation, for the time being at least, and had different protocols. If only for political expediency, locomotives in such numbers could only be British-sourced.

In the event, one hundred class 60s were built by Brush at Loughborough between 1989 and 1993. They certainly look the part, and they sound impressive too, running all but silently even when starting a heavy load, but they proved as unreliable as their predecessors. On almost every locomotive, hundreds of faults had to be put right under warranty before Railfreight would accept delivery, and years elapsed before the fleet was up to scratch. Despite this, the class 60s are not bad locomotives – far from it, if you get a good 'un – but even now their availability figures are disappointing. Many pensionable locomotives dating back to the 1950s, such as the class 20s and 31s, were forced to soldier on to cover for the

state-of-the-art engines that were supposed to replace them. When EWS took over freight operations in the UK, they went straight to General Motors and ordered 250 updated class 59s, designated class 66 and delivered from mid-1998 on. As these newer locomotives entered service, the class 60s began to be cascaded on to less demanding duties where their failure rate was less of a liability.

Let's avert our eyes from this unfortunate record, and look at the modelling possibilities. From the outside, at least, Lima's class 60 is a pretty good model, as far as British-outline RTR goes – which isn't very far. The dimensions are accurate, the shapes and proportions look right and, even without modification of any kind, it captures the solid, slab-sided feel of the prototype. In this respect, it's well up to the standards set by the top US and European manufacturers. Some of the detail work is lovely, especially on the roof and around the cab fronts – the most important areas of a diesel model. On the downside, it has the usual lousy face-commutator motor, the bogie wheelbase isn't right (although the sideframe mouldings are correct), the buffer beam areas are crude and the see-through side grilles – easily the most characteristic feature of the real locomotive – are moulded solid. If we were prepared to pay Marklin money, we might get something better; we aren't, so we don't. I'm not complaining, merely stating fact.

Paradoxically, this situation rather suits me, because I enjoy giving RTR locomotives a thorough working over, as regular readers may have gathered. I see them as a starting point pure and simple, not as an end in themselves. I think there would be something terribly boring about buying an off-the-shelf model that needed nothing whatever doing to it – not that I've ever had one. There would be no challenge, no opportunity to learn something new, no feeling of involvement, no sense of having made the model what it is. Instead, one would merely be buying into someone else's expertise, a sterile and ultimately non-productive experience.

This, however, is one of Lima's classier efforts, and among their strongest sellers. The model is or has been available in most of the fourteen different liveries in which the prototypes have appeared, discounting minor individual variations – the four sector liveries, sector livery with Transrail/Mainline/LoadHaul branding,



sector livery with no branding, LoadHaul black, Mainline blue, all-white, EWS (in two versions) and British Steel blue. As far as the bodywork is concerned, there is only one major problem to report – the clean-air compartment grille under the exhaust silencer is much too large on some early models. Its dimensions were taken from inaccurate pre-production drawings released by Brush ten years ago and copied to this day, uncorrected, in modelling books and magazines. On the real thing, this grille is the same depth but a foot shorter than the twin cooling grilles at the other end; in the drawings and on BR's publicity mock-ups – and hence on the early Lima models – they are identical. Replacing the offending grille with one of the correct size calls for a considerable amount of filling, making good, cleaning-up and, of course, a total repaint – it's a lot easier to buy one of the later models, on which Lima corrected the error. The ones to avoid, I understand, are *Steadfast*, *Capability Brown*, *Christopher Wren*, *Lochnagar* and *Moel Famau*, all in original sector livery.

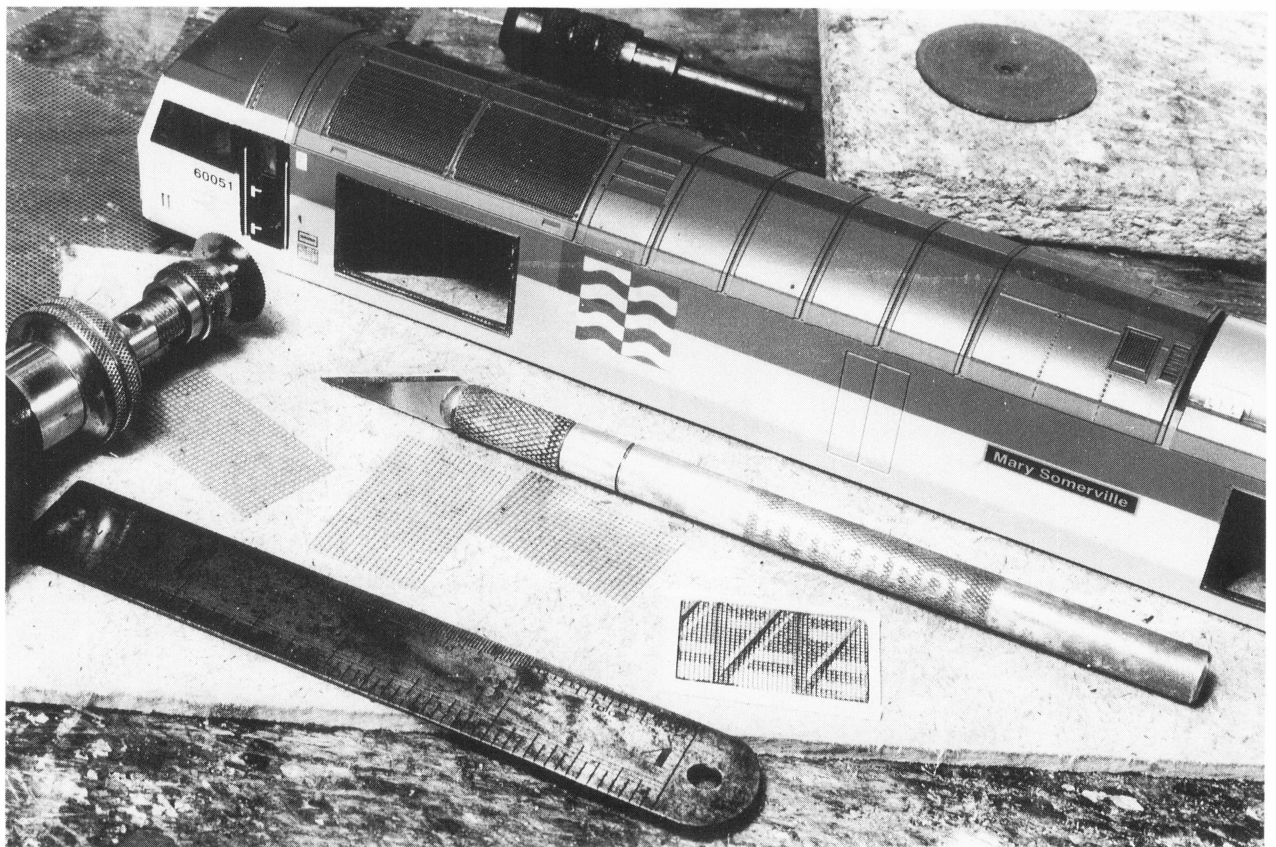
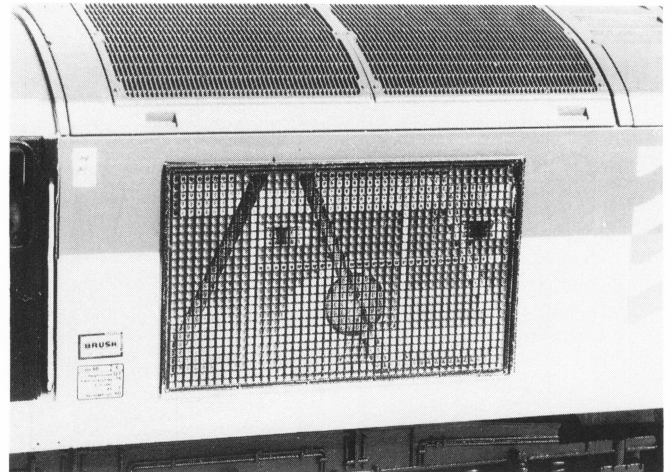
Despite, or perhaps because of the fact that the bodywork of Lima's class 60 calls for little cosmetic refinement, this model has been the subject of any number of

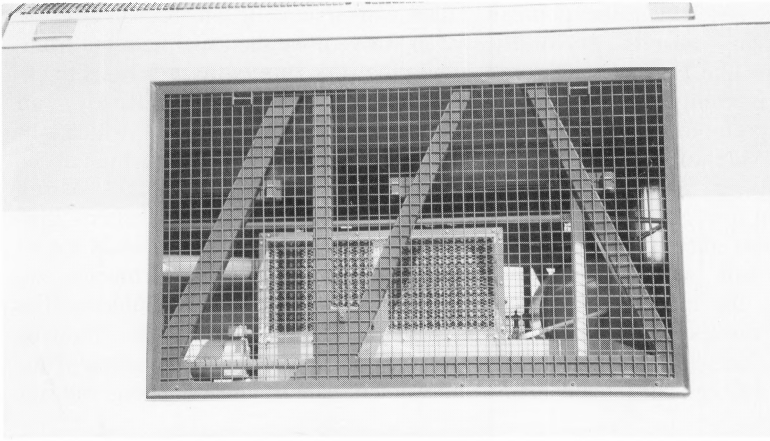
'super-detailing' articles in the popular press. You can buy the bits very easily from somewhere like Howes of Oxford, or you can just as readily make your own, which is what I prefer to do. I won't dwell much on this side of things, though, because nothing very major needs to be done, apart from reworking the bodyside grilles to suggest their uniquely open quality. This can make a massive improvement to the model, if it's well executed. Done carelessly, with the residual tool marks, glue seepages and ill-seated details that are seen on far too many

RTR conversions, it will ruin it. And so, after we've done the usual with the front-end pipework (fuse wire in various thicknesses), screw couplings (Roxey), air horns (turned from mild steel, which cuts more cleanly than brass in a high-speed mini-drill), handrails (nickel wire), buffers (BR 2ft heavy duty pattern from MJT, with new etched-steel heads by A1 Models) and the other small touches, we need to be rid of the three moulded grilles on the bodysides. Instead of following form by drilling around the edges of the unwanted panels and snapping out the

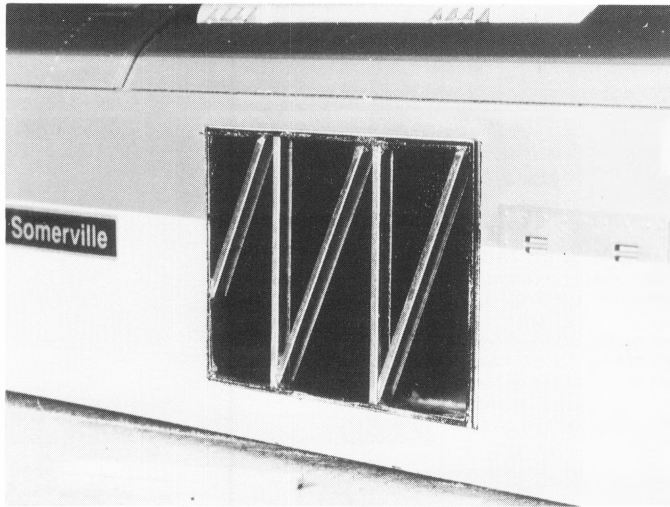
*Lima's roof grille is exquisite but the bodyside detail goes off at half-cock.*

*Below: The grilles are removed with a circular saw and replacements are cut from Scale Link mesh. I kept the moulded clean-air compartment detail, ready to be remounted inside the bodywork behind a new see-through grille.*





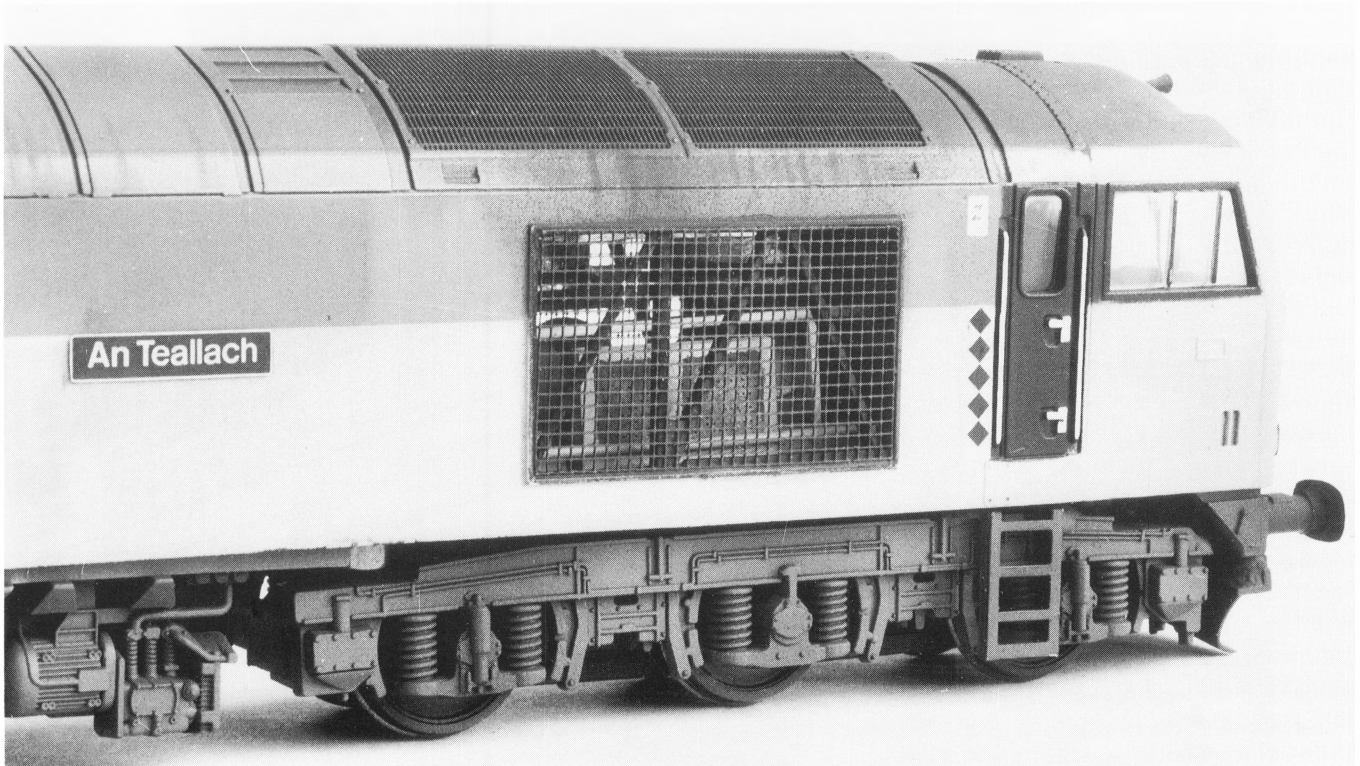
*Bodyside detail on the newly delivered James Watt.*



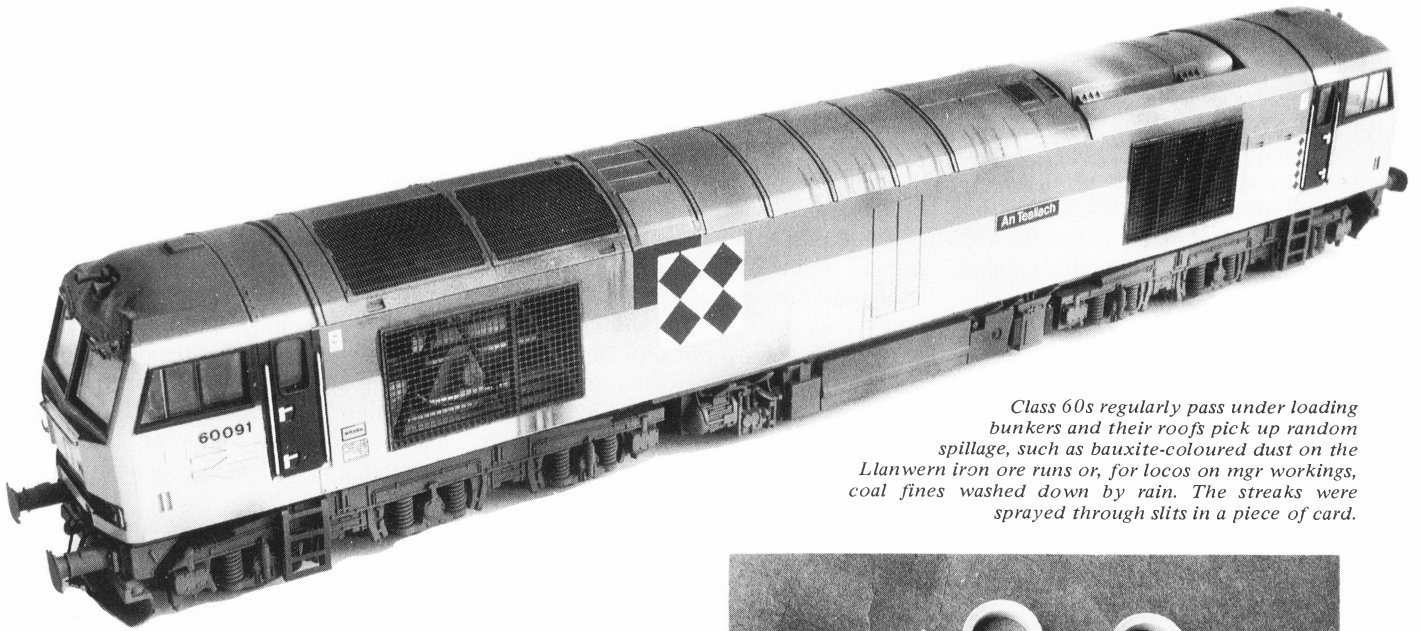
*The body framing is reproduced in I-section milled brass.*

centres – a messy operation which calls for a lot of cleaning up – I took them out with a small circular saw in a power tool. This gives a very crisp edge and enables me to cut right up to the outer framing first time, without subsequent trimming. I junked the two cooling grilles but I liked the look of the clean air compartment detail, which has some awkward shapes in half-relief that would be difficult to replicate accurately. I took it out with particular care so it could be remounted in the body, correctly inset a couple of millimetres, behind a new and finer mesh that is flush with the outside of the bodywork. This double-thickness grille is a feature of the prototype and although the inner layer is actually a diamond pattern, and not rectangular as moulded, the deception hardly notices.

As a glance at the prototype will show, the side grilles on a class 60 are much finer and more open than on any other diesel. To represent them I used Scale Link's 1mm square mesh (ref SLF77) cut to shape with a craft knife. Dimensionally, this is about 20% over-scale but it is much more delicate in appearance than the ready-made grilles that are produced for this class and it gives, in my view, a better and more realistic effect. The proprietary etchings also incorporate the distinctive W-shaped bodyside framing but this looks



*The open grilles are sprayed with Humbrol's Metalcote gunmetal and then lightly polished to bring out the oily sheen of the prototype.*



*Class 60s regularly pass under loading bunkers and their roofs pick up random spillage, such as bauxite-coloured dust on the Llanwern iron ore runs or, for locos on mgr workings, coal fines washed down by rain. The streaks were sprayed through slits in a piece of card.*

very one-dimensional and unconvincing, especially when seen from any kind of an angle. I preferred to make it as a separate assembly, using 1mm × 1.5mm I-section brass obtained from Mainly Trains. The sections, which are close to scale thickness and profile, were cut and mitred using a carborundum disc and secured in the bodywork with clear Uhu. I added various small fillets in Microstrip and then solvent-welded the grilles into place on the bodysides.

Although replacement roof grilles are available, I felt – peering over a road bridge to get a good look at a prototype locomotive from above – that the Lima ones were good enough as they were, as long as they are weathered into conformity with the side grilles and not left grey. Something of a mania seems to have developed in modern traction circles for fitting RTR models with etched grilles but I find myself wondering, on occasion, if this is necessarily an ‘improvement’ as I understand the term and besides, the results don’t always accord with reality. The ventilator fans are plainly visible through the roof grilles of some locomotive types – the class 56, for instance – but on other designs they are nowhere near as revealing as many modellers assume. This is certainly the case with the class 60, whose inner organs are exposed through

*Components from the Appleby Model Engineering interior detail kit.*



the side apertures but whose roof grilles – beneath which lies a solid bank of radiators – are as closed and shuttered as a poultry dealer’s doors on Boxing Day.

A whitemetal interior-fittings kit for the class 60 is, however, available from Appleby Model Engineering and this is well worth getting hold of. In the past, I’ve not always been over-impressed by the quality of AME’s detail castings but these are excellent, and the instructions are commendably clear about what goes where. Pretty well everything that’s visible in a good photograph is included but there is scope to add some extra pipework in Microrod. When the class 60s were new – and for some considerable time afterwards – the various air tanks, blowers, pumps and filters were pale grey, but they are now heavily weathered and it’s a lot more difficult to see what’s inside. I left a number of parts, such as the fan shrouds and radar baffle, in bare metal that had been lightly burnished with a polishing mop, because this is how they

appear on the prototype. It also makes for a little tonal variety – nothing looks more model-like than having every last detail painted a uniform shade.

The same logic applies to the bodysides. The model I’d bought was *Mary Somerville* in Railfreight petroleum livery, which meant airbrushing out the tampo-printed nameplates and markings to create a coal-sector loco. I didn’t bother doing the whole body but merely masked off the relevant patches, plus a centimetre or so either side. Railmatch’s sector-livery colours are lighter than Lima’s but, if the new paint is feathered in discreetly, there is just the vaguest hint of unevenness in the bodyside coloration, which is exactly how things are on the real thing after a few months of wind, rain and occasional bright spells. The replacement coal-sector symbols are from Fox Transfers, who produce them in ‘new’ and ‘faded’ colours to choice, and the nameplates came (eventually) from CGW Models.



Which brings us, neatly enough, on to the matter of locomotive names in general, and those of class 60s in particular. When I was a lad, Mars bars cost fourpence, you could tell the make of a car by the shape of its body, and engines had intriguing, even poetic names such as *Luckie Mucklebackit* and *Lord Balfour of Burleigh*. I found them so fascinating that the first hardback book I ever bought with the money for my thirteenth birthday, was H. C. Casserley's *British Locomotive Names of the Twentieth Century*. Today a Mars Bar costs seven bob, I can't tell a Dodge from a Daihatsu and engines carry such brain-numbing names as *Lea & Perrins*, *BBC Look East* and *Pride in Huddersfield*. The class 60s, however, entered service with names as inspiring as any given to a locomotive in the last hun-

dred years, some commemorating men and women of real achievement (Charles Babbage, Robert Owen, John Reith) while others bore the names of some of the country's highest and wildest places: Boar of Badenoch, Buachaille Etive Mor, Pumlumon Plynlimon, Shining Tor. Today these names – which, at the very least, fired the imagination and excited curiosity – are either being removed from the engines as they are repainted into EWS livery or worse, replaced by such all-time total duds as *The Freight Transport Association* and *Nordic Terminal*.

I'm sure this commercially-driven policy makes for some useful PR at the time of the naming ceremony – a good lunch for the execs, a para or two in the local paper, perhaps a snap of 'our' newly refurbished loco in a house journal – but

what kind of interest does it arouse among the youth (or the adults) of today when they see the loco a few months on, dirty and dishevelled and working diagrams that have no connection with the organisation commemorated in its name? Very little, I should imagine. I named my loco *An Teallach* because I liked the sound of the words – especially when pronounced by a Gaelic speaker – and I liked the wind-scoured purity of the mountain even better when I saw it on *Wilderness Walks*. It was good to get the maps out and find it, seven miles south-west of Ullapool, and one day, perhaps, I'd like to go there – but I don't think I'll bother with *The Clothes Show* or *Norwich Union*, at least not on the strength of a locomotive name.

*To be continued in the next issue.*

# Paint-a-peel

by MARTYN WELCH

One of the most annoying spray paint effects to be found on model locomotives – or coaching stock, for that matter – is the orange peel or 'Jaffa' finish, which totally spoils any illusion of a prototype paint job (*Photo 1*). Usually resulting from insufficient air pressure which prevents correct atomisation of the paint, or holding the airbrush too far away from the model, which has the same effect, it can be encountered with most types of paint, but more commonly with cellulose. Even with the correct pressure and distance from subject, a 'too much paint and not enough thinners' mix in the airbrush will also bring about a similar result, as the particles of paint have not properly dispersed, are thus too coarse, and settle upon the model like dust in a storm. Cellulose paint is exceptionally hard, which is one reason for its popularity, the other is that it dries instantly on a warm day, which can also be its downfall. Although reducing the opportunity for dust and other uninvited guests to stick to it, were it to take longer to dry, the paint droplets might have time to spread out more evenly, but they just don't get the chance.

If weathered later, you might be forgiven for thinking this will disguise the speckled paint, but whilst an application

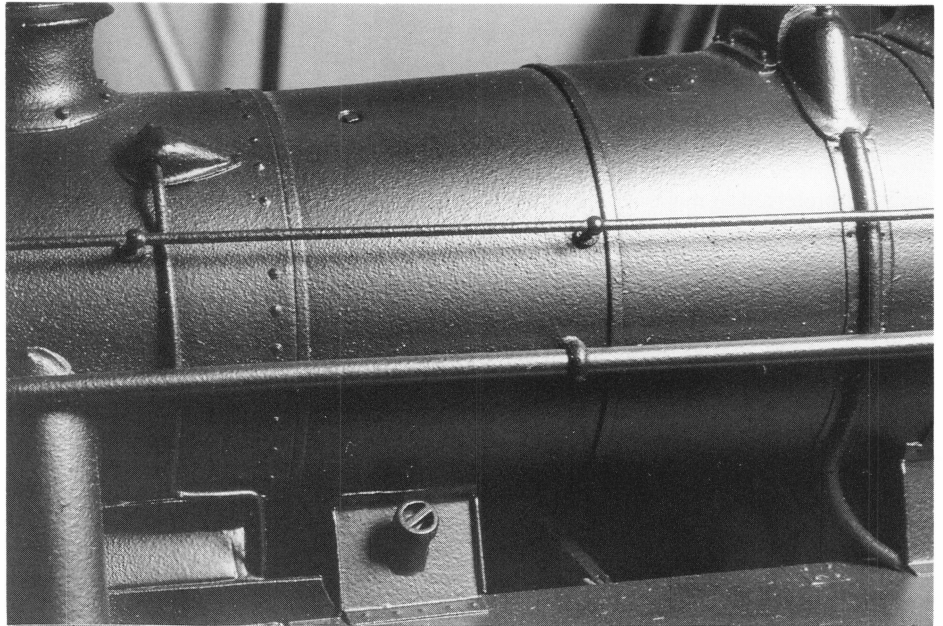


Photo 1

of grime may slightly fill the hollows, it will also add paint to the bumps which will effectively emphasise, rather than disguise them, particularly if any dry-brushing takes place afterwards. So, what can be done to resolve the situation? Well, first things first.

1. If the item was painted by someone else to order, don't accept it – either request that it be done again, or ask for a refund. This leaves you with a duff paint job, but not out of pocket.
2. If bought ready painted 'as seen' and you have no recourse to the original painter, you're left in a similar boat, but without the financial benefit.
3. You could pass it to a professional for a complete strip-down, which takes with it all of the lettering, numbering or perhaps complex lining, followed by fresh painting and decorating, or undertake the stripping-down yourself before handing it over. The latter option is somewhat messy and long-winded and your time may be better spent doing other things. Either way, it will still be costly, having essentially paid for two paint jobs.
4. If you painted the item yourself in the first place, you probably won't have carried on with the decorating stages, so less time and materials will have been wasted, but I suspect most would decide upon stripping everything down and starting again.

However, no matter who is to blame for the original disaster, if you're left with a model which has a cratered surface, whether or not it is fully lined and lettered, careful work *can* restore a silk purse from the hapless sow's ear – if you have patience.

*Photo 2* shows the principal stages involved, the first being to take a fibreglass scratch brush and rub the paintwork with a gentle scrubbing action until all the bumps and hollows seem to have disappeared. Every accessible patch of paintwork will require this treatment, which is why it takes so long, but if the model has already been lined and lettered, take care to avoid these specific parts. Hopefully, any orange peel paint beneath the transfers or lining will be less prominent. The trouble with the fibreglass bristles is that they get everywhere. How many 'professional' paint jobs have you seen with the pesky blighters lying embedded in the paintwork? Try to scratch them off and a chunk of paint flakes away as well, leaving bright metal glaring accusingly back. If this happens, then liquid gun blue applied with a cotton bud will darken the offending patch. The quickest way of removing loose fibres from all nooks and crannies is with a soft bristle brush followed by a blast of air from the airbrush to blow them away. Watch your eyes, though.

Once happy that all visible areas have been tackled, the next stage is to gently rub T-Cut liquid polishing compound over the paint using cotton buds. This

may be purchased from any decent car accessory shop and is used for rubbing down car paintwork. It effectively removes a fine top coating of paint and at the same time, the rubbing action evens out the surface as the paint liquefies very slightly. If the original paint is acrylic or enamel and thus not as tough as cellulose, the T-Cut may be too powerful and an alternative is to use Brasso instead, as this will have a similar, but less dramatic effect. Try both on parts usually hidden from view until happy with the results.

The next stage is to place a nylon bristle brush attachment in an electric Minicraft type modelling drill and use this to buff up the paint surface. Be careful here, as the heat generated by the polishing could melt the paint, unless it's cellulose which can be quite severely abused without too much worry. However, during the scrubbing and buffing stages, even the toughest of paints may wear away from small raised detail such as rivet heads or other sharp edges. Either avoid these critical areas to start with, or, if it's too late for that, be courageous – use fine emery paper to slightly roughen the surface of any exposed metal and then apply the gun blue to it. It should instantly darken to a blue/black colour, which is fine on a black locomotive – but if your model isn't, then the rivet heads will just need a speck of the appropriate body colour touched to them with a fine brush afterwards. For plastic-bodied stock, the gun blue will obviously be inappropriate,

and exposed plastic will require either remedial brushwork or some gentle spraying from the airbrush with the original colour to re-coat the areas concerned.

In *Photo 2*, the panel below the 'L' shows the original finish, the next one has the fibreglass brushed effect, with the panel beneath the 'M' showing the final result. Now the light reflecting from the last panel shows that the paint surface isn't entirely smooth, but further activity would eventually result in a mirror finish. However, if you look closely at the prototype, you will observe that it sometimes has pretty rough paintwork. Often the paint shops didn't bother with a proper rubbing-down of all the old chipped paint, preferring to attend to the worst parts and virtually ignore the rest before applying a fresh coat. So, particularly with larger scale models such as this 7mm item, you may decide the dappled finish is more realistic than a totally smooth one and, left in this condition with perhaps just a light weathering, the results should be pleasing. Heavy weathering will mask a lot of the dappling anyway as it is essentially a lot flatter than the original speckled surface, and the light cannot reflect so readily from it.

How long the entire procedure takes is down to your patience and the smoothness of finish sought. Whatever finish you choose, at least the Jaffa effect should be gone and you can breathe a small sigh of relief.

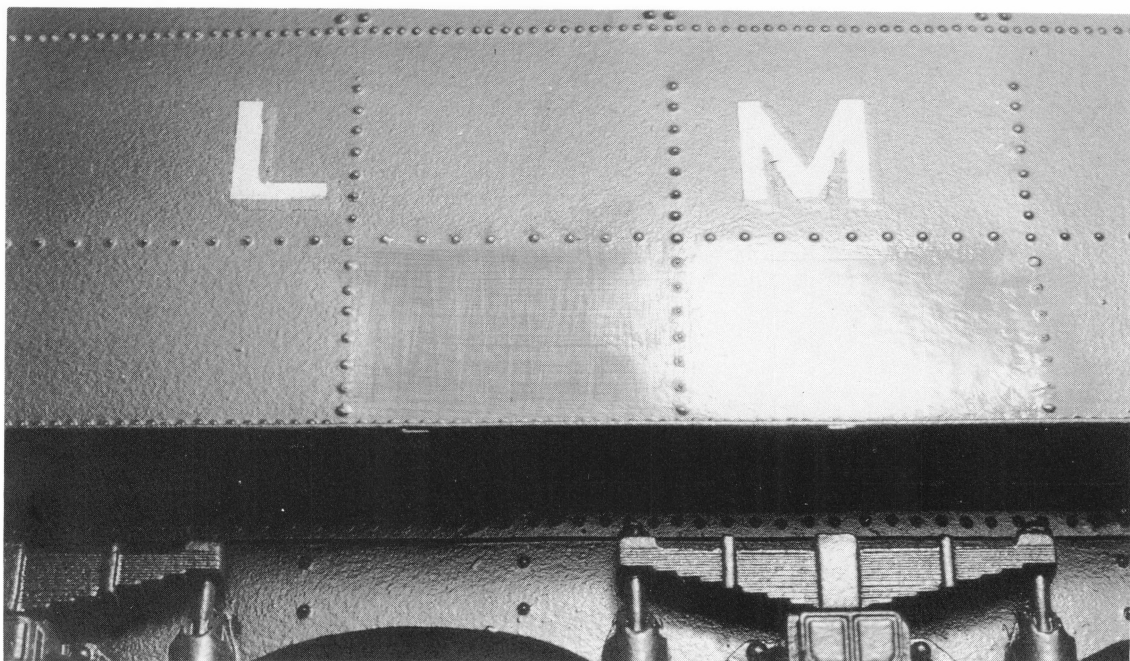


Photo 2

# THE ELECTRONIC FLYWHEEL

by ADRIAN NEWSON

I will attempt to keep this article as non technical as possible and for those who are frightened off by the word 'Electronic', please don't be, as there is only one type of component involved.

There have been many articles in railway modelling publications describing the benefits of mechanical flywheels. I am an advocate of these, and, being a member of two clubs with layouts on the exhibition circuit, have seen the improvements these bring to the running of locomotives. When building stock, I take a great deal of care in ensuring smooth running of the chassis. However, at a two-day exhibition, despite clinical cleanliness, wheels and track still pick up dirt leading to a stall — normally at the moment a spectator switches his video camera on to record. With mechanical flywheels, the

main requirement is a motor with a double-ended shaft and space for the rotating piece of brass. The normal layout has gearing one end and a flywheel the other. So, what about motors that are not doubled-ended, or have had the previously unused part cut off? This is where the electronic flywheel comes in.

A bit of physics now. A rotating mechanical flywheel is basically a reservoir of

stored energy. Similarly, in electronics there are devices which store electrical energy known as capacitors, and what I will now describe works for me. I'm sure there are those out there waiting to shoot me down, but, if nothing else, what I am suggesting is food for thought.

The capacitor is connected across the motor as per *Fig 1*.

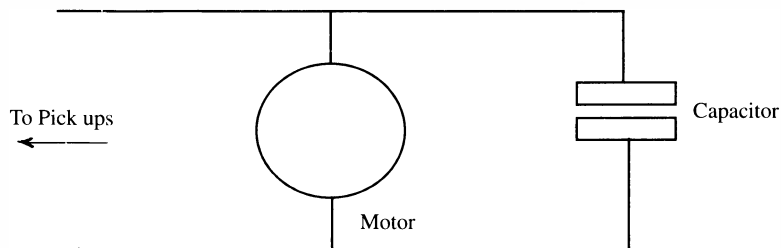


Figure 1

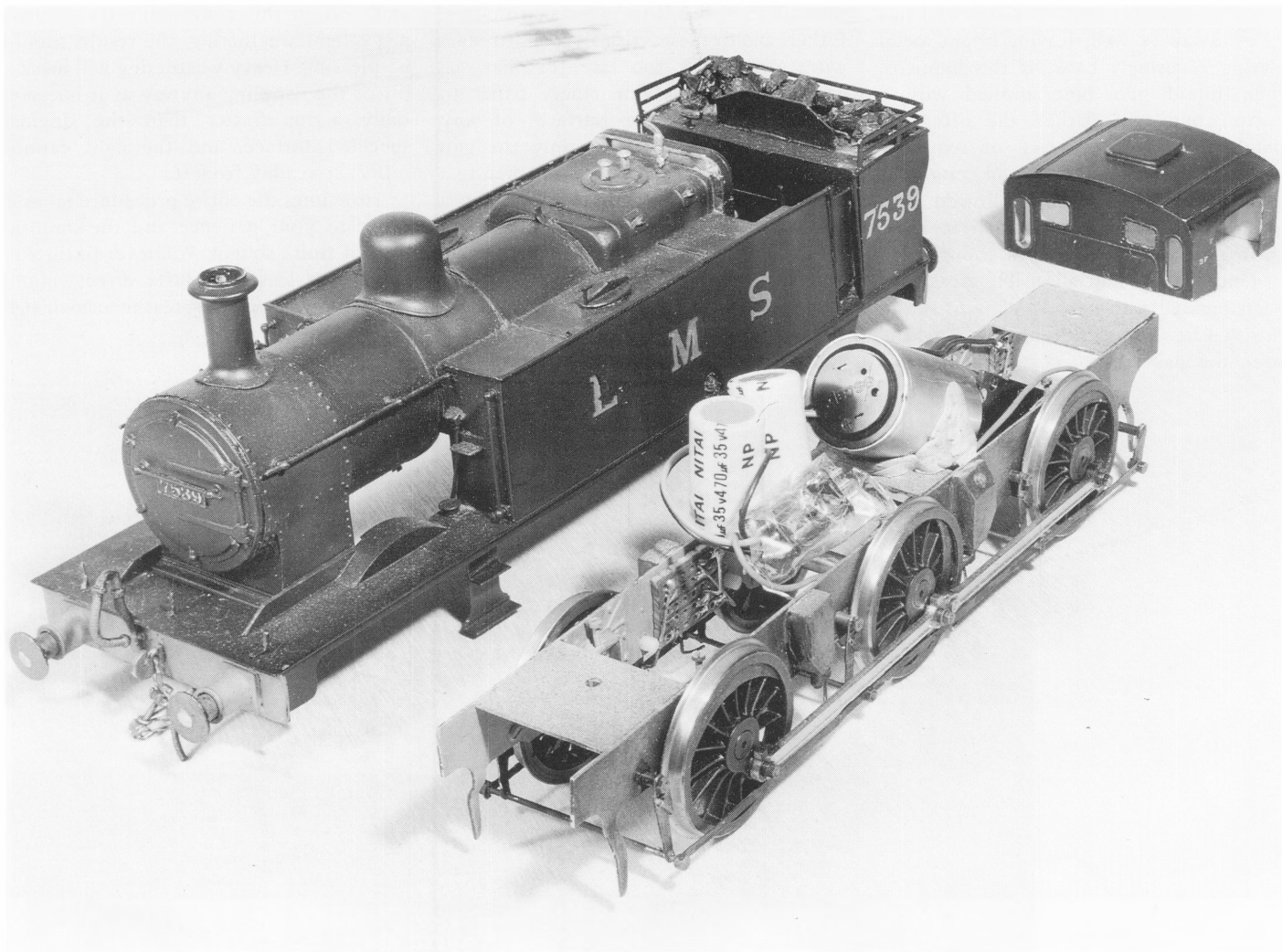


Photo 1



When a voltage is applied, the motor rotates, but at more or less the same time, the capacitor 'charges up', storing electrical energy. All the time the voltage is applied, the capacitor maintains its store or charge (see *Fig 2*).

If the supply is suddenly removed, the capacitor now discharges its stored energy into the motor, maintaining rotation for a period of time (see *Fig 3*).

The period of time will depend on the power being taken by the motor and electrical size of the capacitor. For this type of application, a large value of capacitor will be required and you need a type called an electrolytic capacitor. However, these are polarised, which means you have to connect positive to positive and negative to negative. If by chance or carelessness you reversed this, the capacitor would burst, spewing out all sorts of nasty materials. It is this which has prevented the use of these as electronic flywheels — fine for forward, but put in reverse, you can for an instant simulate a badly fired steam locomotive as smoke wafts out from the innards of your engine.

Technology now comes to the rescue, because there are now available electrolytic capacitors that are non-polarised and of a value and working voltage that make the concept of an electronic flywheel possible.

I model in 7mm and for the majority of my stock have used Portescap RG7 units, and I will admit now that the low current consumption of these motors does make life easier. My preference is also to use pure DC

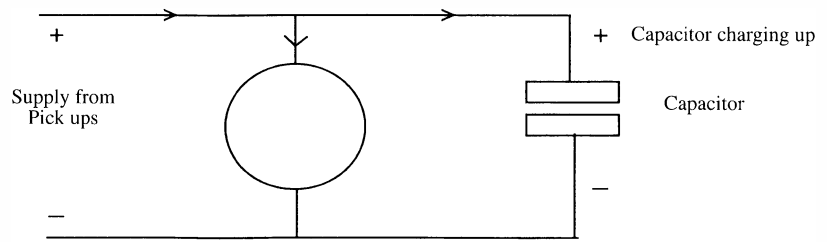


Figure 2

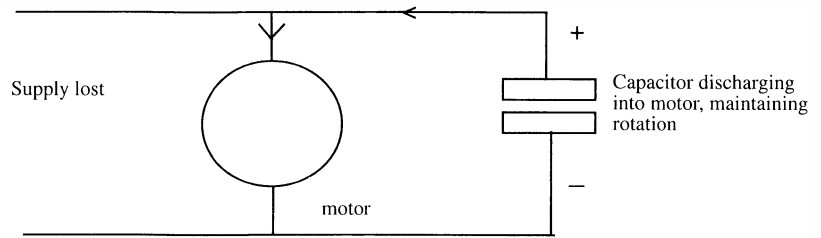


Figure 3

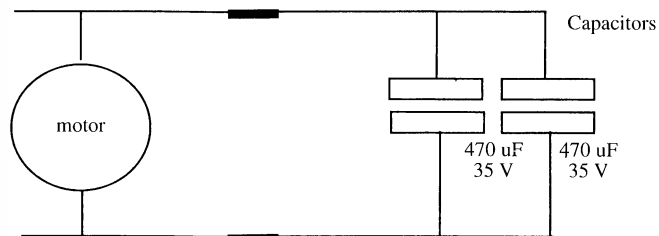


Figure 4

Optional Connectors

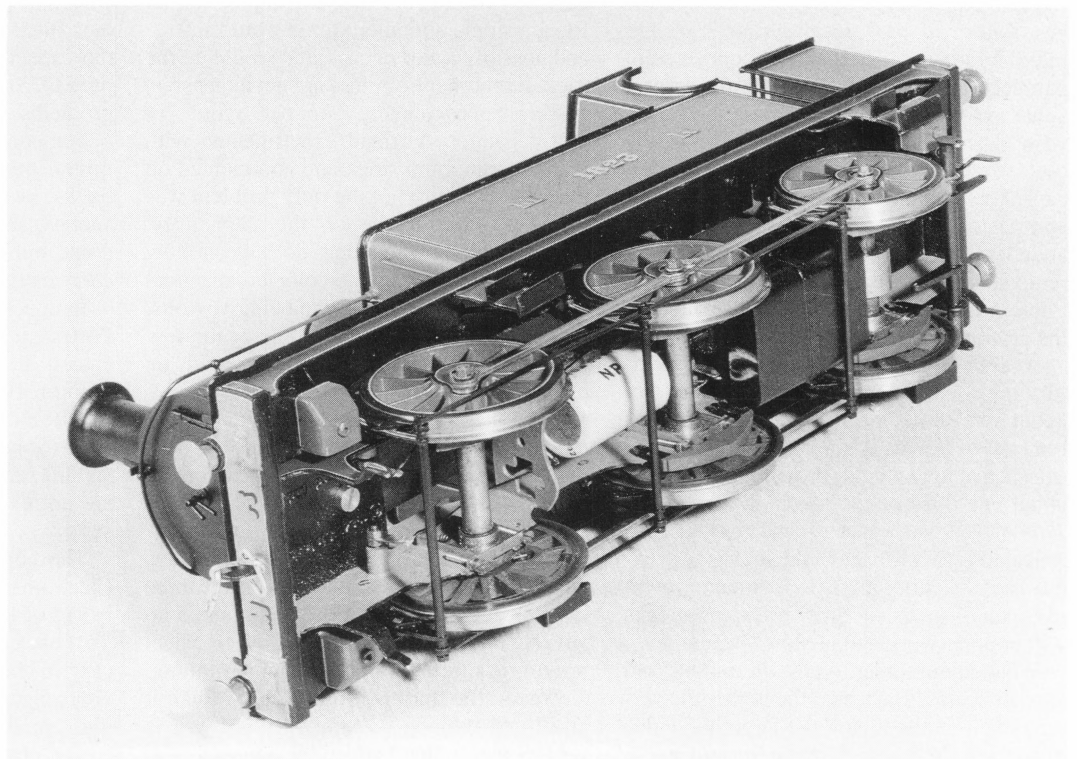


Photo 2

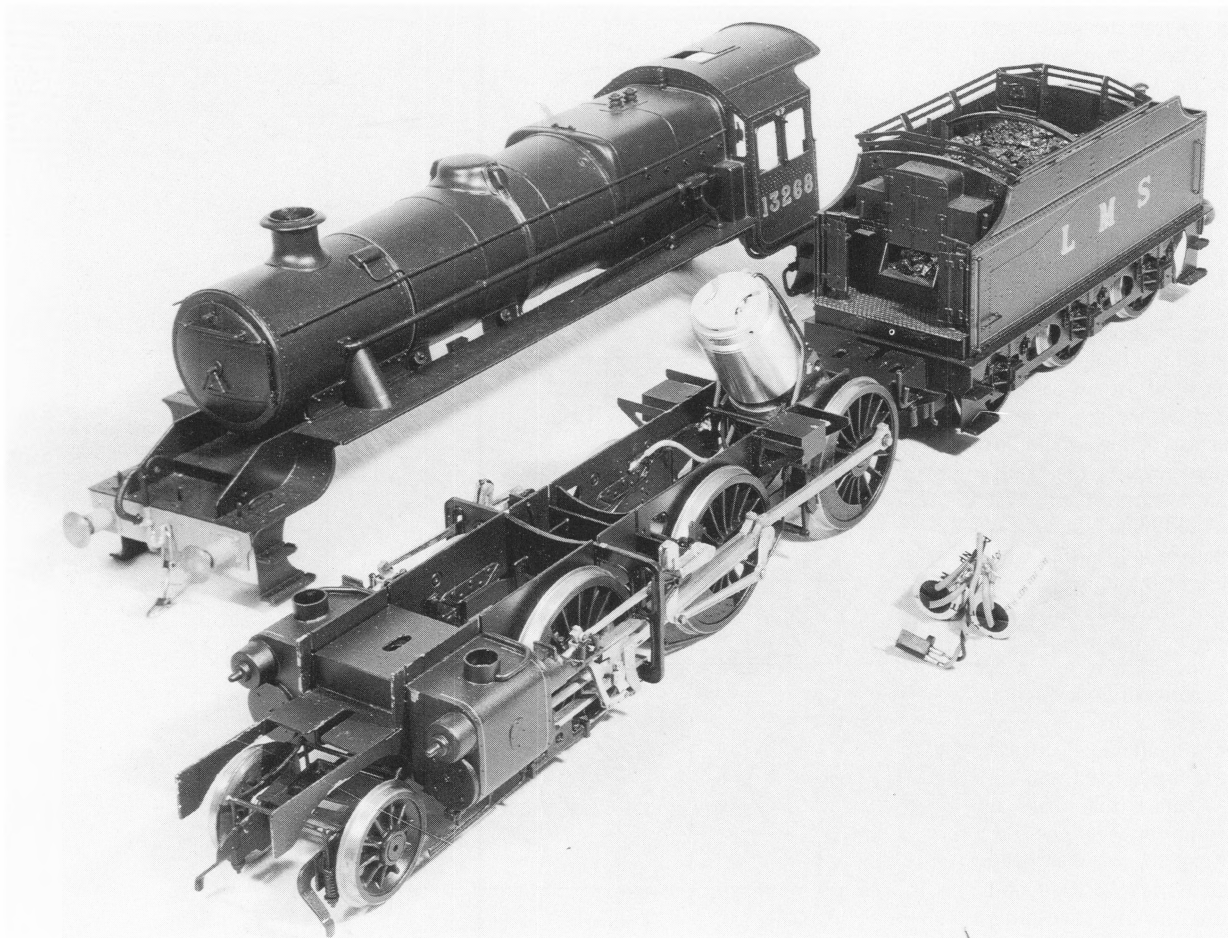


Photo 3

(no feedback) controllers with these motors. Experiments to date have indicated that the best values of the capacitors are  $2 \times 470$  micro farad, 35 volt capacitors connected in parallel. At the moment this is the largest value available — please correct me otherwise. These can physically be lost in the boiler or tender and Photos 1 and 2 show the capacitors installed in an Alan Gibson Jinty and Slater's half cab respectively. I have added a miniature connector to enable removal if required. This can be seen in Photo 3 and is also under the clear tape on the prototype Jinty.

At a reasonable speed, the pair of capacitors allows the locomotive to run on for about two-thirds of its length on sudden removal of power. A single 470 micro farad (uF) capacitor would provide run on for about one third of the locomotive's length. This may be adequate for many situations, especially where space in the loco is restricted. The idea, after all, is to maintain motion over small areas of dirty track, or breaks within point work and at slow speeds.

What about other types of motors and smaller scales? Basically, the higher the current taken by the motor, the larger the value of capacitor required. Using a Mashima, you

could need five of the 470 micro farad capacitors to achieve the same effect. For an RG4, a single 470 micro farad would suffice and possibly a 220 micro farad would do the trick. Experiment — these are not expensive, costing approximately 70p per 470uF 35 volt capacitor. A friend experimented with ready-to-run 4mm stock and commented on the improvement, but the only problem was finding space to house the capacitors. However, a lot of models do have hollow boilers. There are lower voltage capacitors available, the next size down being 16 volts, but I would consider these to be of too low a working voltage and they could be damaged.

Possible problems? I'm sure that the manufacturers of feedback controllers will hold their arms up in horror. These controllers do not like mechanical flywheels, so how would the electronic flywheel affect them? Perhaps the manufacturers of the controllers would like to comment. I have tried three types of feedback controller and noticed no adverse effects on two of them, the flywheel providing a further improvement in running. However, the third controller did not like it at all and running became very jerky. It is for this reason that I added the connectors to

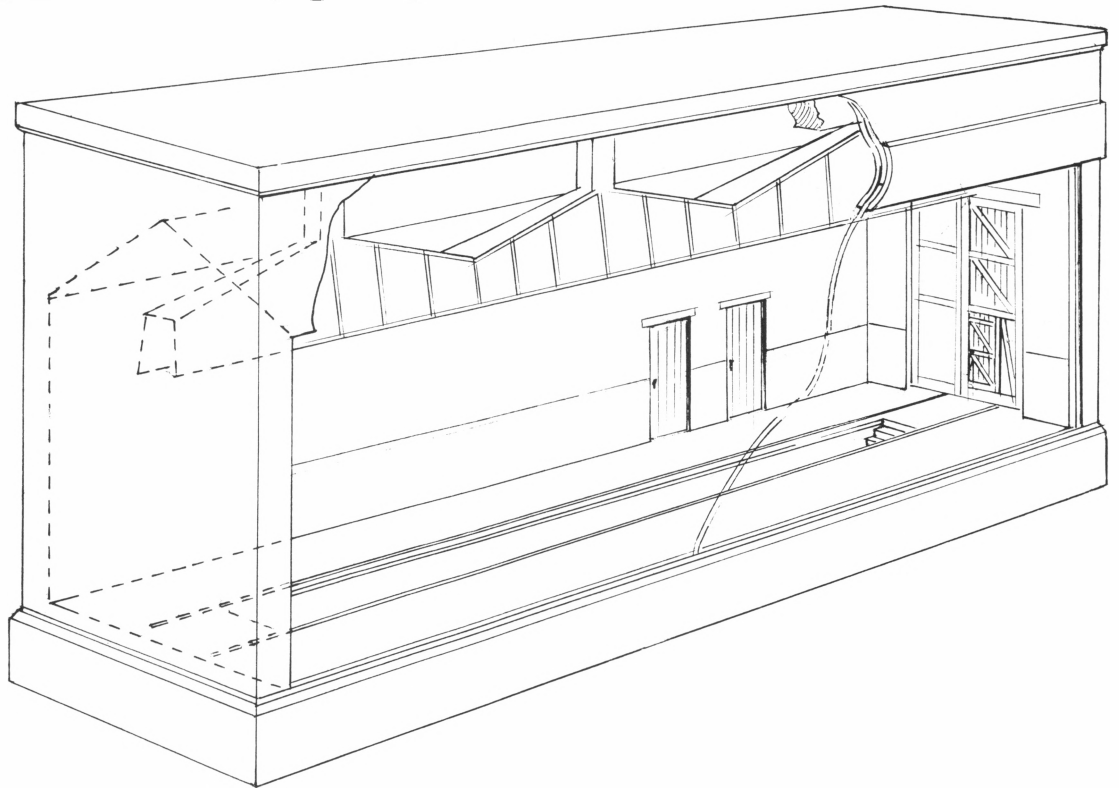
enable removal of the capacitors in case of emergency, or when running on other layouts fitted with controllers that react against the capacitors. My own controllers have a pure DC output, and the capacitors cause no problems.

Someone suggested that the capacitors might be placed electrically across the tracks, or installed in the controller. For spotless and perfectly flat track, I can see his point, but the idea is for the locomotive to carry its reservoir of energy with it.

In conclusion, this has worked for me. A Portescap motor together with an accurate chassis already provide the basis for smooth running, but I consider there is always room for developments and am pleased with the improvement in running and reduction in stalling. As I said earlier, these components are not expensive, so experiment for yourselves.

The components can be obtained from: Electromail, PO Box 33, Corby, Northants NN17 9EL. Tel. 01536 204555. The 470 uF 35 volt capacitor order code is 768-598 (13mm dia., 25mm long). The 220 uF 35 volt capacitor order code is 768-576 (13mm dia., 20mm long). The miniature connectors can be obtained from Four Track Models.

# SHEDCASE



I've often seen prized model locomotives, usually 7mm scale, displayed like trophies in glass cases, frequently kept on mantelpieces or safely stowed on shelving in studies or hallways. They can look very grand and that's fine by me. How many of us at some time in our lives haven't been impressed and dreamed of owning a Beeson? However, the models that appeal to me the most are the ones that look less like an exercise in model engineering prowess, and more like the real thing, i.e. weathered to some degree and sometimes even battered. It all depends on your preference.

I like to try and produce models that are convincing enough that when photographed you need to look twice to see if they are real, much after the fashion of those weathered wagons built by Bob Essery and featured in the *Railway Modeller* in the early 1960s. They probably started me down that road. Whether or not a weathered loco looks its best in the sterile environment of a glass case is open to debate, but I prefer to view them in their natural surroundings. With this in mind, I've spent ages at various times sketching out small settings or dioramas

*PAUL KARAU explains an idea for displaying model locomotives in a self-contained authentic setting:*

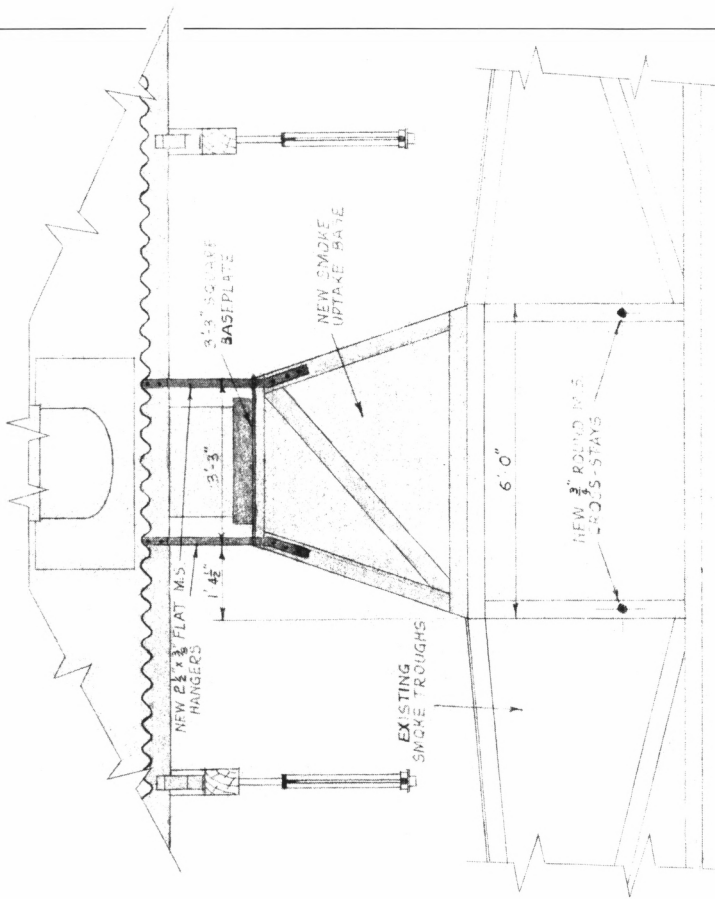
on which to view models, but there's always the complication of disguising both ends of the scene with bridges and other view blockers. I never did find the perfect solution. Then one day, after a discussion about 7mm modellers who never seemed to find room for a layout, I suddenly realised that modelling the inside of an engine shed with the doors closed at both ends, provides a scene which was perfectly and legitimately contained without recourse to any dodging. Furthermore, the lighting could be perfectly controlled by those clever enough to arrange such things. Of course, windows in the back wall could provide backlighting, which I don't think is desirable if we want to admire the model inside, so I would suggest a plain brick wall, which is quicker and easier to make anyway. The light could be directed through the skylights in the roof with the 'sun' shafting down onto the facing side of the model. Other possibilities include a far weaker light behind and windows in

the 'back' wall, or perhaps blacking them out to suggest darkness outside and lighting the subdued interior with miniature bulbs, etc, to suggest soft oil, gas or electric lighting.

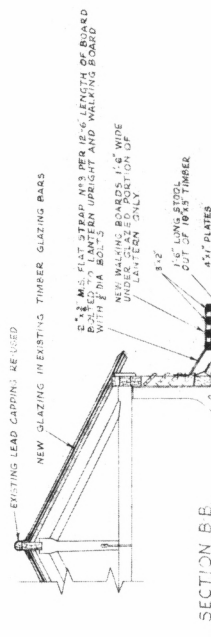
So much for the concept, but what about the design of the case? Well, depending on your requirements and space available, you could portray a simple single-road shed, two tracks of a larger straight shed, or even half a round-house.

The first sketch shows the basic outline of a simple brick-built single-road shed, but it could equally apply to stone, wood or corrugated iron structures. There is also a rough cross-section to give an idea of simple construction of the case, but although I have suggested the position of a strip light or row of bulbs, I have not indicated any ventilation for the heat which, of course, is *vital for safety*. This could be achieved by drilling a series of holes in the lid, or a slot, and the escaping light could be contained by



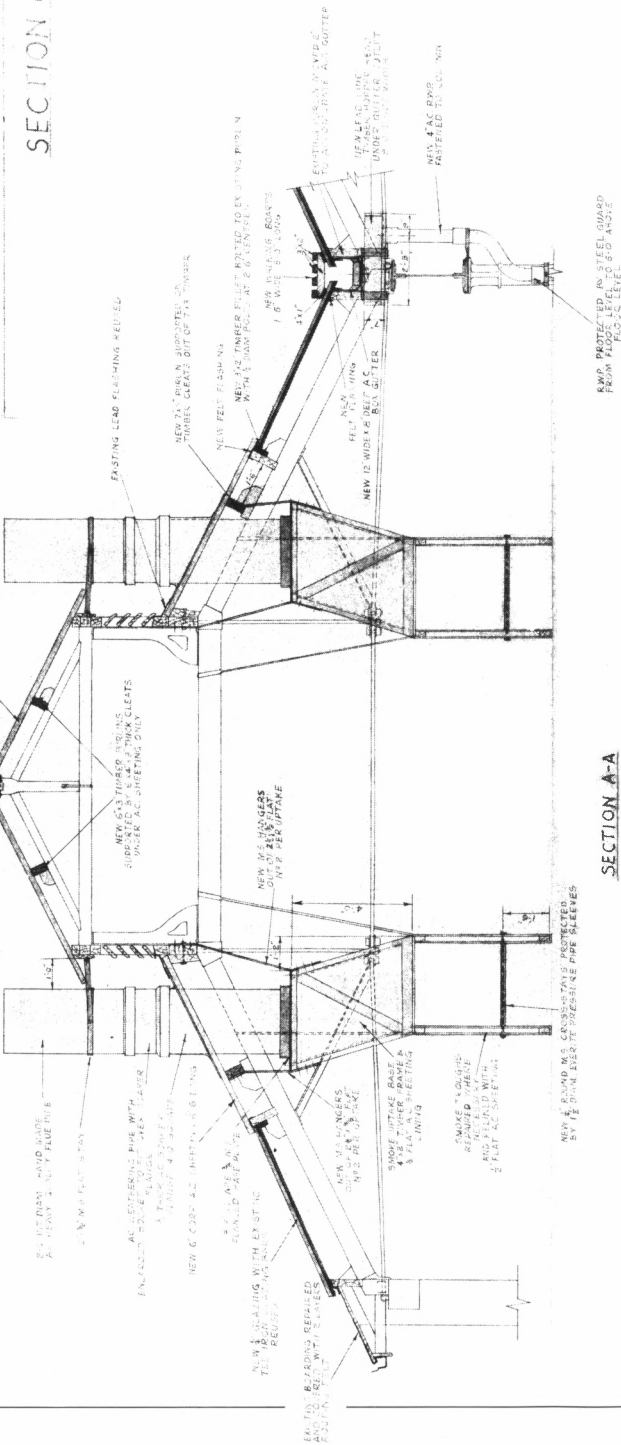


SECTION C-C



SECTION B-B  
SCALE: 2 FEET TO 1 INCH

EXISTING LEAD CAPDINS RE-USED  
NEW GLAZING EXISTING TIMBER GLAZING BARS  
2 1/2\"/>



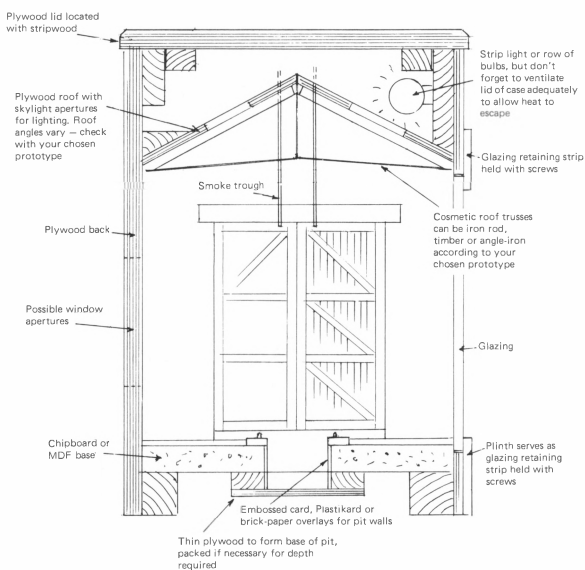
SECTION A-A

|                                              |                                                                 |
|----------------------------------------------|-----------------------------------------------------------------|
| APPROVED                                     | BR LONDON MIDLAND REGION ENGINEERS DEPT<br>DERBY SOUTH DISTRICT |
| CHIEF ENGINEER<br>DATE: 30/11/48<br>DESIGNED | WESTHOUSES & BLACKWELL<br>LOCO SHED<br>RE-COVERING OF ROOF      |
| SCALE:<br>2 FEET TO 1 INCH                   | SHEET 2 OF 2<br>DS 427/48                                       |
| DESIGNED BY                                  | DRN                                                             |
| EN                                           | EN                                                              |

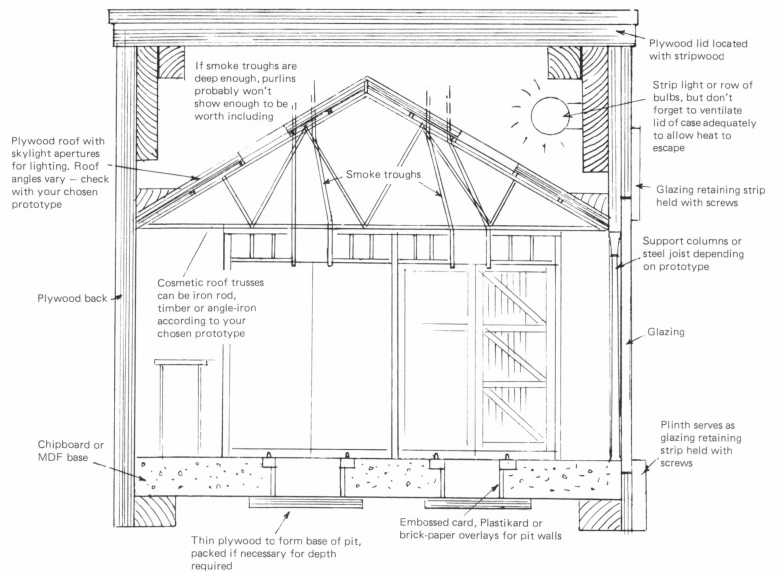
baffles or a clever cowling. However, the electrical wizards out there will doubtless show us all some innovative and impressive schemes for providing the various lighting effects.

The details of the inspection pit, roof trusses, smoke troughs and doors, of course, depend on your favoured prototype. I would suggest time spent on these details would be worthwhile because the better the models to be housed, the more important it is to complement them with accurate and fine fittings.

The rough cross-section of the double-track version shows a possible arrangement for, let's say, one half of a four-track shed.

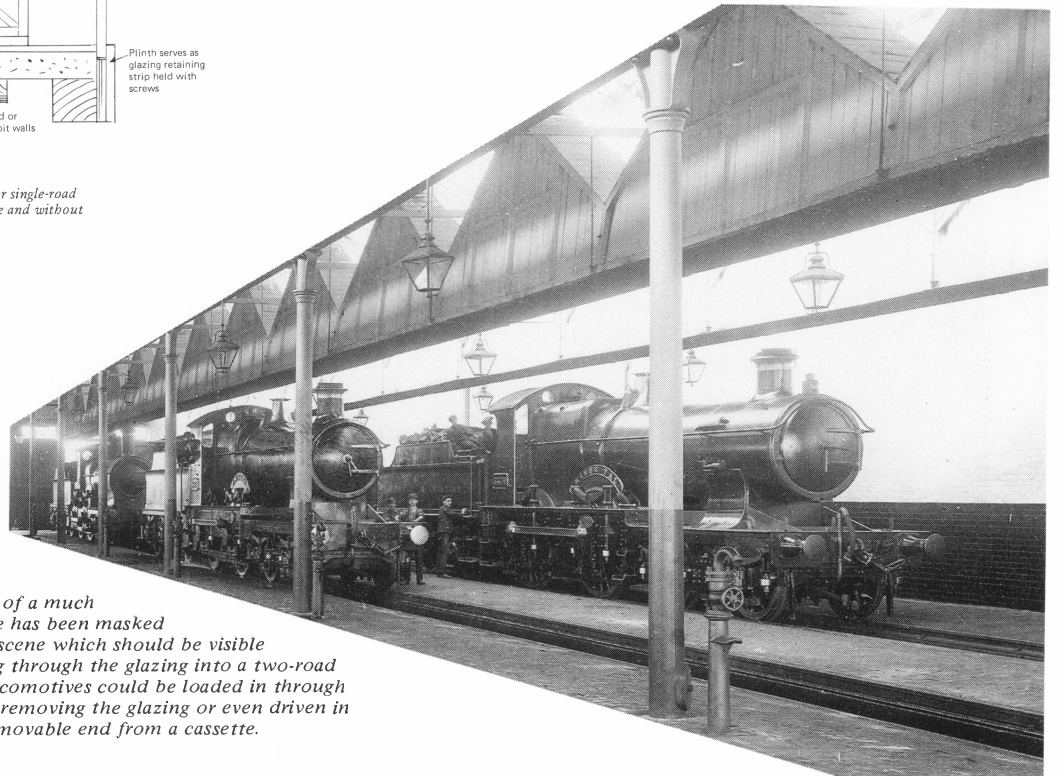


*Rough freelance sketch only for single-road shedcase, definitely not to scale and without reference to any prototype.*



*Rough freelance sketch only of two-road shedcase, definitely not to scale and without reference to any prototype.*

blocker. It may therefore only be necessary to model the roof trusses rather than worrying about purlins or any simulation of the underside of the roof. There's no point in making it more demanding than is absolutely necessary.



*This portion of a much larger picture has been masked to show the scene which should be visible when peering through the glazing into a two-road shedcase. Locomotives could be loaded in through the front by removing the glazing or even driven in through a removable end from a cassette.*







*This photo taken inside Upper Bank shed on 8th July 1947 is much the sort of scene the shedcase should provide.* H. C. CASSERLEY

So there it is, an idea which I sincerely hope will provide somewhere inspiring to view your locos, particularly for those 7mm modellers who haven't yet got around to building that layout. The possibilities of the concept could easily be applied to the interior of a sizeable goods shed for all you wagon builders out there and even a train shed of a passenger station, but, in the absence of doors, the only way I can think of to disguise the end(s) of the scene would be to use some sort of opaque white glass or plastic sheeting with strong light behind it to suggest the daylight outside, but I doubt it would be quite that simple.

## COMPETITION

The notes and sketches here are only intended as a guide. If you feel inspired by the idea and end up building a shedcase to display your locomotives, you may like to submit a photo of the finished thing for entry into our competition. The scale you choose is up to you, but we thought the idea would be most effective in 7mm.

The first prize is £100, second prize £50 and third prize two years subscription to MRJ. We will be pleased to publish photographs of entries received as we go along, but the deadline is 30th September 1999, so grab some odds and sods, a tube of glue and get cracking.

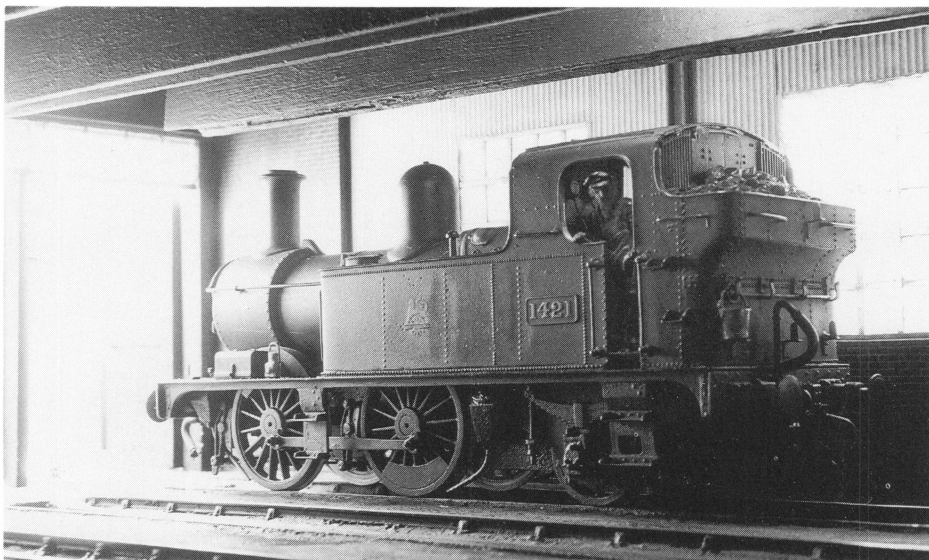
Good luck!

# A SHEDCASE VARIANT

Until recently, I've had the luxury of using a spare bedroom to house a steam shed layout (featured in MRJ Nos. 83 and 97), but changing domestic circumstances meant it could no longer be used for that purpose and 'Laura MPD' is now safely installed in a superb new site owned by a remarkable enthusiast and supporter of our railway heritage. The lack of room meant that any new projects would, for the time being, need to be contained within a smaller area, but the prospect of placing future stock in glass cases – albeit the sensible choice of museums and exhibitions – did not really appeal. I find it hard to relate to a locomotive when detached from its natural surroundings, finding it similar to a boat viewed out of the water.

So, when Paul Karau approached me to build a diorama based upon the *inside* of a small engine shed which could be a possible way to display stock, this had an immediate appeal. When suitably illuminated from behind its back wall windows and side entrance doors, the cast light should replicate daylight from the outside, creating pools of contrasting light and shadow falling on the engines. It positively reeked of mood and atmosphere – elements of modelling that I most enjoy, and if I've understood him correctly, this idea might appeal not only to the space-starved, but also to modellers who have a working layout but which might be inappropriate to support a favourite locomotive from a different period, company, etc. My brief was to keep the project straightforward – easy to construct, minimal detailing, small enough for shelf mounting and able to hold several engines. Interpretation can be tricky, but I have tried to incorporate the spirit and vision of his idea and this project offers an alternative to the glass cabinet – a static diorama with 'optional extras' to add some spice.

Whilst the scale chosen is 7mm, the basic idea is easily adaptable to others, though I would pass the observation that because the diorama is so compact, it is best viewed close up as if looking through an actual side window of the building. At this distance, the 7mm version does have distinct advantages; a sense



*Quite separate from our competition, we told JOHN DORNOM about the shedcase idea and he immediately set about devising his own, and experimenting with backlighting and ways of avoiding the need for closed doors at each end:*

of the models' mass or physical presence, together with the ability to focus comfortably, all producing a more naturally proportioned effect.

The carcase is made of Sundeala board, chosen for its pleasant ease to work with when sawing or drilling, and internal bracing is 21mm square batten which I find essential to prevent the board taking a shape of its own choosing. This carcase, the internal side/rear wall and lid, along with part of an apex roof plus smoke chutes attached, form the three sub-assemblies. External dimensions are just over 2ft long by 13in deep and 9½in high – a fair bit smaller than many aquariums, if comparison is helpful.

The model is not based upon a specific location, but loosely follows the general style of straight-road shed practice typical of many erected from 1929 onwards with Government

assistance. This accommodates quite a wide geographical spread and most companies lasting well into nationalisation, which allows for a certain flexibility. This sample is a three-road version of brick construction each end, with brick sides up to the base level of steel-framed windows, corrugated sheets above to roof level, upright steel girders along the walls' length, plus outward-facing wooden doors at the one end. Three inspection pits (as distinct from ash/firebox drop pits) are included for general poking around or oiling; the difference between them is that the latter were a shade less gloriously filthy than the former. In order to simplify matters, no attempt has been made to model the complicated roof support structure whilst the smoke chutes/troughs are basic card and balsa construction. The funny thing is, these omissions are not noticeable enough to



distract because the chutes act as visual blocks to the roof itself and, at the same time, force the eye to look downward into the scene rather than at the chutes themselves. The temptation to whip out the slide rule for every dimension was also suppressed when remembering that this is intended to be more broad brush stroke or impressionistic than technically precise in its nature.

It will be seen that the side/rear wall sub-assembly and tracks run about 10 degrees out left to right from the outer casing, which inevitably creates some compromise. I decided upon this in order to create a triangle of free space behind both walls for the lighting units.

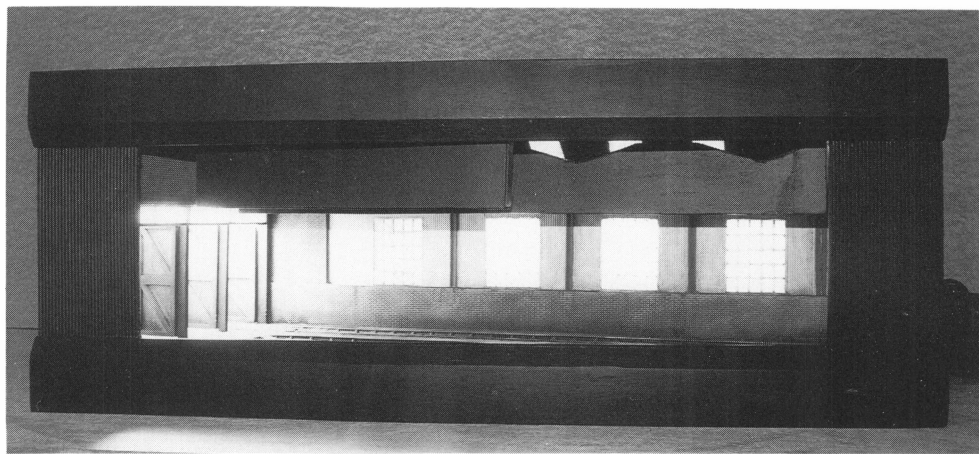
Had they been parallel, the whole diorama would need to be several inches longer and deeper. Another reason was to heighten visual interest by viewing the engines from a three-quarter study and at the same time, gain a little sense of building perspective. Besides, a touch of asymmetry provides an additional dash of visual curiosity. The only drawbacks with this are the rails/pits in the foreground, which run offstage to the right front, although fortunately disguised by the lower front fascia, also the nearest smoke trough had to be truncated half-way along and now looks more like a chute instead. Although wrong, it actually enhances depth perception of the scene, but this may not

be to everyone's taste and you may wish to choose the more obvious parallel orientation. Remember, though, to add a good 4in to the length and depth for the lighting equipment.

Construction of the back wall with windows was kept delightfully straightforward by using a sheet of 2mm thick acrylic Plexiglass measuring 22in x 8in as the basis of the wall, stiffened top and bottom with a length of batten. This avoids the tricky job of window fabrication and wall cut-out alignment. With the protective film still in place on the rear of the glass, the position and marking of the window bars was drawn onto the film with a felt-tip pen to act as a template for the direct application of Plastikard

*Bright rear and side lighting contrasts with the dark structure surrounds, drawing the eye into the shed scene.*

*Below: Although the scene ceases outside the doors, the lighting creates an illusion of continuing railway territory beyond, whilst a carefully placed hand lamp masks the rail's end.*

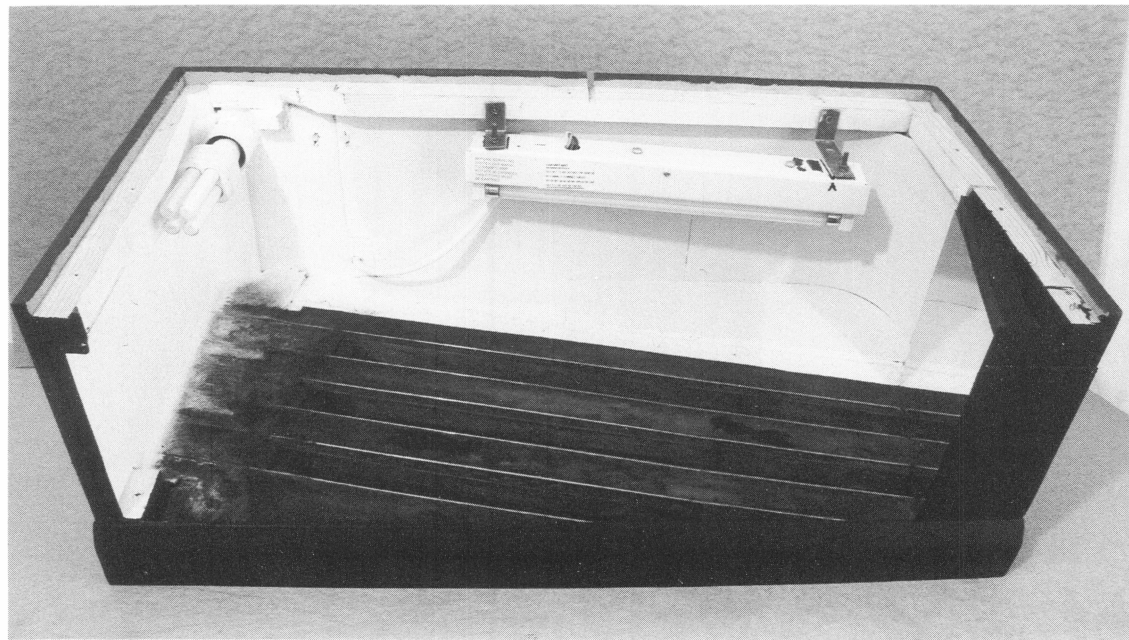
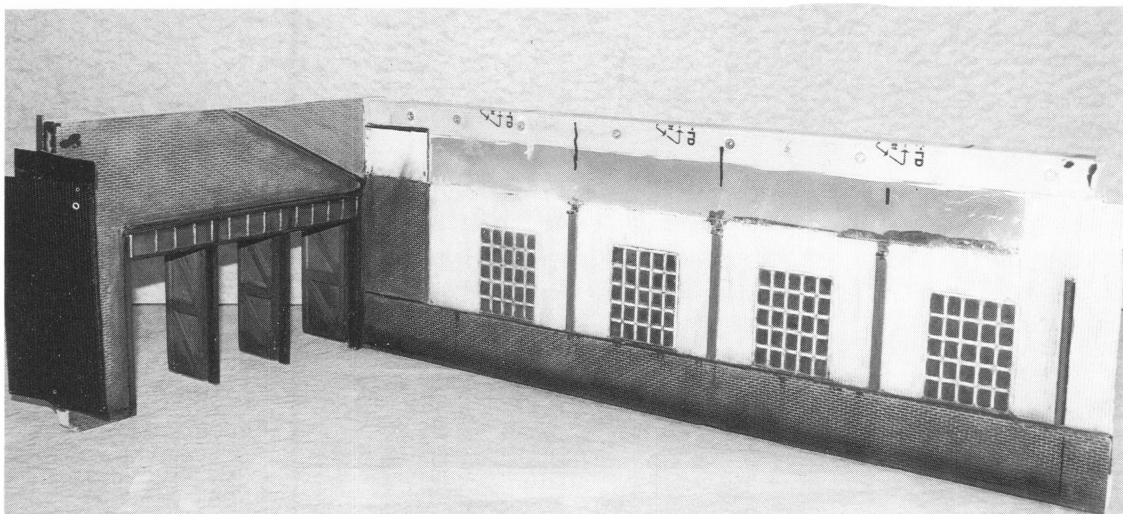




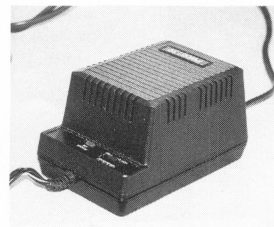


strips on the front of the glass using liquid solvent. When all was set, the rear film was peeled off, then embossed brick and corrugated sheets were built up around the window frames using double-sided carpet tape. The end wall with opened doors was attached to this, and this whole 'L' shaped and removable (for access to light units) assembly was slotted behind the raised floor covering which conceals the wall/floor joint.

Once the track and pits have been established and the floor covering raised to rail level, this only leaves the fitting of the right end inner wall at 90° to the track, plus fitting a thick sheet of Plastikard (I used 80-thou) inside the left wall of the carcase, having first given this a light spray of matt varnish. The purpose of this sheet is to present a perfectly flat, non-glare and grainless covering to the wall visible through the open doors. This is supposed to represent the great outdoors of the diorama which, if not treated as described, will look awful when light is shone upon it. Incidentally, I reduced the spacing between the three tracks



Top: With the lid raised, the simple construction of the internal roof fixtures can be seen. A solitary bulb provides minimal down-lighting. Centre & left: After removal of the separate shed rear/side wall unit, the offset interior arrangement reveals triangular spaces for the concealed lighting units.



to gain a little extra space, which is not too noticeable from normal viewing angles, but, if correct spacing is required, extra depth must be added to the diorama's dimensions.

External finish is down to personal taste – especially if intending to site it in the living room – and I chose a length of hardwood angled skirting top and bottom to provide a semi-framed effect. A sheet of 100-thou plastic siding (Evergreen), painted matt black to match popular furniture, was placed either side of the front opening, and the outer Sundeala carcass given a coat of acrylic brown.

Although internal lighting was part of the brief, strictly speaking it is optional, although obviously it can make one heck of a difference. The effect I sought to capture is illustrated on page 273 of *GWR Engine Sheds (London Division)* published by Wild Swan – a well-thumbed and highly recommended essential reference source. The nearest I could get to emulating the lighting effect in that photograph came from using a 12in, 8-watt fluorescent tube in terms of balancing power, colour, evenness of spread and low heat output requirements. The 8 watts might seem low, but is the equivalent of 40 watts of tungsten in a confined space, and if that seems like overkill, remember the light has to punch its way through grimy, soot-covered windows. Mounted high, the tube is not seen through the windows. Behind the wall and inside the carcass, a very pale cream paint was applied to give the reflected light a hint of warmth.

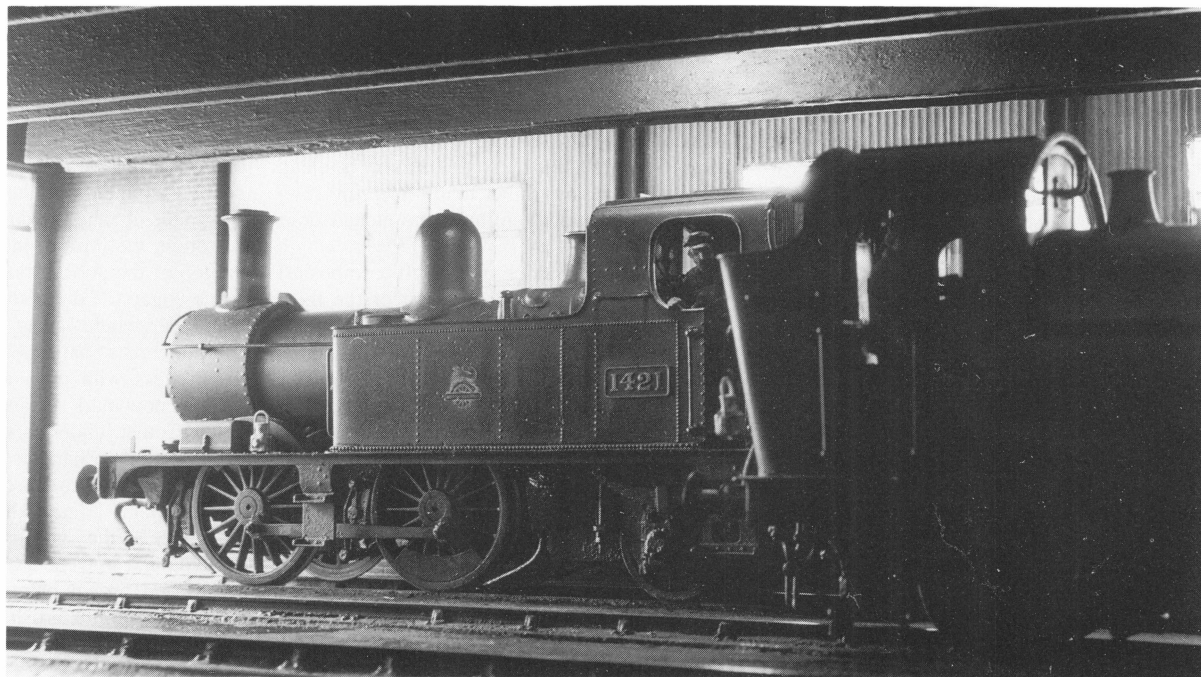
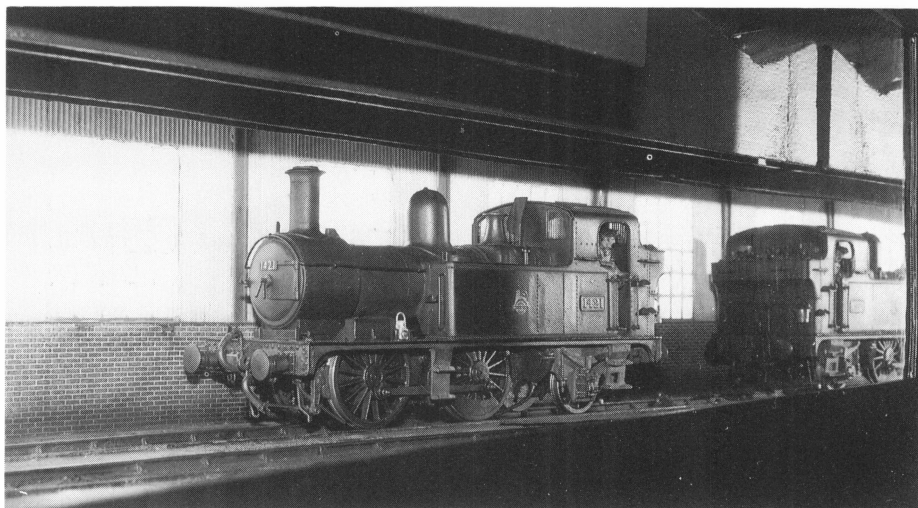
Choice for behind-doors side lighting is even trickier with much less room for heat dissipation, so I've plumped for one of the new generation low-energy Eco Phillips 9 watt bulbs (but again equivalent to 30 conventional watts) with the standard mains bayonet fitting. Its light output is a cross between fluorescent and tungsten, which is a bit too warm for midday sunlight, though not at all unpleasant, reminding me of the golden glow seen in some dawn or

dusk skies. Finally, a small 10-watt car interior torpedo bulb – pure tungsten this time – is tucked up behind the middle smoke trough about midway along, which shines downwards. Its role is to replicate the typically crap internal shed lighting and its purpose is twofold. With the main lights on, it is hardly noticed, adding a very subtle highlight to the texture of an engine parked beneath it. However, it comes into its own when used as the only illumination for a night-time scene. Power for this bulb comes from a mains-powered step-down transformer (about £11) beloved of toy games users, and most are fitted with a switch to select 3, 6, 9 or 12 volts, making it a handy adjustable dimmer for special effects. If the room light is subdued in the evening and the power set to 6 or 9 volts, the scene can look quite magical.

To reduce the impression of looking into a small 2ft long box, I've placed a mirror where the right end wall is situated, which has the effect of making this boundary disappear,

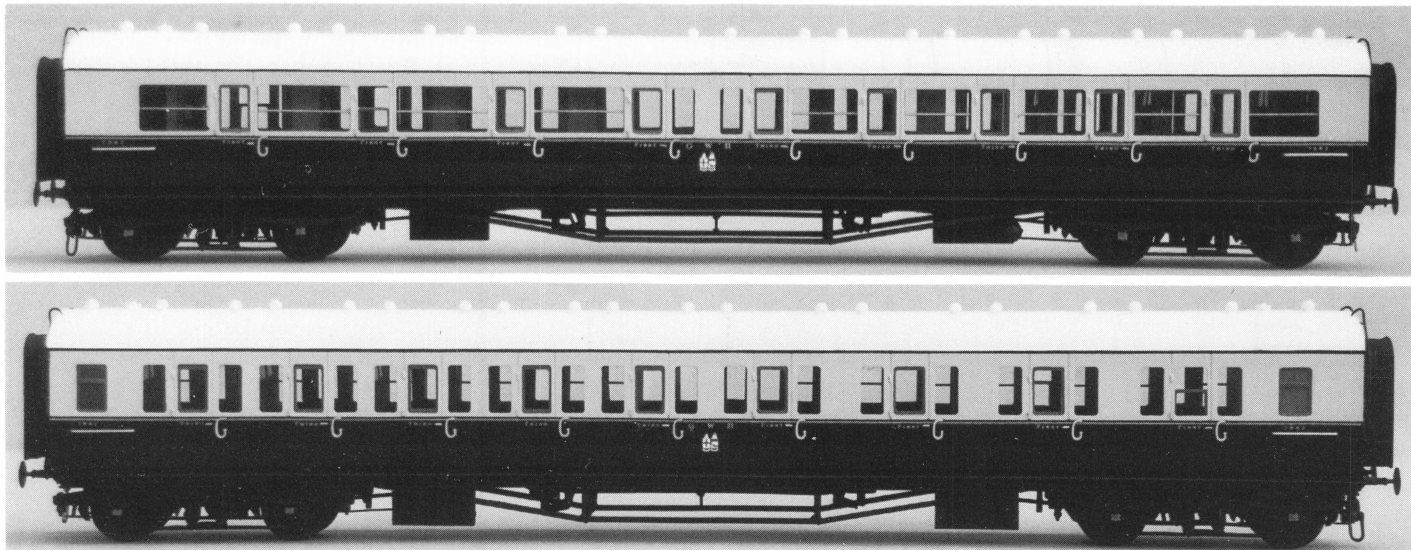
increasing the shed length substantially in the process. This is optional, but well worth the small outlay unless basing the model on a very short shed such as Wellington in Shropshire, which barely had room for six engines. For variety, both types can be catered for by simply shaping a sheet of brick-embossed Plastikard to slide over the mirror for a short shed and removed in an instant for the extended type.

That about wraps things up. I've deliberately left the interior bereft of fine detail such as shed clutter, figures, etc, rather like an empty new house is sterile without any furniture or junk of humanity, because this is an area for individual builders to customise to their tastes. There's certainly no shortage of scope. The cost works out a shade more than a good glass case mount, but remember it will hold up to five medium size engines or two large and a couple of small locomotives with ease. Stinking good value in my book!



Top: The mirror suggests a larger shed – and increased stock of locomotives! Above: Lighting is critical if the desired atmosphere is to be achieved.

# SOUTH WALES 70ft COMPOSITE IN 4mm



These impressive coaches were built during the period 1923 to 1926, and were first used on the Paddington to Swansea service, and so became known as 'South Wales' stock. They were the last of the 70ft line to be built, and survived until the late 1950s, the last being withdrawn in 1963. The composites were built to Diagrams E109, E110, E111 and E112 covering the variations of the left/right-hand firsts and flat-end/bow-ended stock. Much information is in John Lewis's fine article 'The 70ft South Wales Coaches' which appeared in *Great Western Journal* No. 17.

The method I shall describe for building one of these coaches can only be applied to left-hand first composites, which are to Diagrams E111 — flat-ended, and E109 — bow-ended. There is confusion over Diag. E109. Those built under Lot Nos. 1310 and 1319 are down as right-hand composites, yet a photograph of coach No. 7601 shows the first class compartments, viewed from the corridor side, on the left, and a reproduction of the Swindon drawing covering these two Lots in John Lewis's article, confirms first class compartments are on the left. There is no such confusion about Diag. E111 — a photo of coach No. 7937 confirms that it is a left-hand composite. Numbers for these coaches are Diag. E109 — 7601, 4, 43, 45; and for E111 — 7932, 6-9, 40-2.

## THE MODEL

The model is based upon the 4mm Comet Models kit No. W1, a 70ft corridor third to Diag. C46, and utilises their sides No. W8 for a 57ft corridor composite to Diag. E127. The W1 kit comes with flat ends and scissor gangways, so if you are building a bow-ended coach ask for these to be included instead of the flat ends, with, of course, suspended gang-

*BOB HOMER cuts up Comet kits to make this distinctive vehicle from the GW's Paddington-Swansea services:*

ways in place of scissor. The W8 sides are thankfully slightly over prototype length, so that they can be used as overlays on Hornby coaches. The model as built is for flat-ended coaches 278mm long and for bow-ended coaches 279mm long, the thickness of the bow-end castings making up the difference. Once built, I doubt if anyone will notice that the coach is not 280mm long, for the overall impression is correct.

To form the sides of the 70ft composite, part of the all third 70ft (W1) and the first-class portion of the 57ft composite are used. Before making any cuts, it is worthwhile to mark up the sides with a felt-tip so that all will be clear. I use a razor saw (rather than a piercing saw) which more happily follows the etched door line.

Starting with sides W8 (57ft composite) corridor side, cut down the first of the third class doors at the hinge post (which, counting from the left, face up, will be the fifth door). Then with side W1 (70ft all third) corridor side, cut down at the hinge post of the fifth door. You will now have the left-hand portion of W8 and the right-hand portion of W1, which, when butted together, will form the corridor side of the composite. With the corridor side done, it is easier to tackle the compartment side. Starting with the compartment side of W8 and counting from the right, cut at the lock/handle post of the fifth door, and likewise with the compartment side of W1, counting from the left, cut at the lock/handle post of the fifth door. When the left-hand portion of W1 is butted up to the right-hand portion of W8, this

will form the compartment side of the composite, giving five third class compartments on the left and four first class compartments on the right.

Make up your body jig as recommended by Comet in their instructions. Start with the corridor sides, and with the two portions face down and butted up, line the tops against a straight edge and solder a strip of brass over the joint 2mm below the window and just above the curve of the tumblehome. Check that all is well on the outside face and that the top is in line. You will probably find that the curvature of the tumblehome varies between the W1 and W8 sides, so use your fingers to gently ease them into the same arc. Return the side to the jig, and, working from the back, solder down the joint at the tumblehome and to the top of the door. From the outside face run a fine-edged file down the door line to remove the solder where it has run through the join, and put back a neat groove to the door. Repeat the process with the compartment side, and you can now mark out and drill the door hinge holes. Comet, under part C6, can supply a set of etched T-door handles which are ideal to use for hinges; these go on sometime before painting, although I leave the middle hinges out until later — they get in the way of the masking tape and prevent a clean line between the cream and brown paintwork — and can be touched in with a brush afterwards. The bottom edge of the sides will probably need to be filed level.

Assemble the coach as per Comet's comprehensive instructions. Once the body is boxed



up and before the roof goes on is a good time to alter the compartment and roof layout provided in the W1 kit. Place the coach body over the interior plan and mark out the revised positions of the first class compartments. These were 7ft 6ins wide, so you could, as an alternative, simply redraw to scale. The third class compartments remain unchanged. Once the revised compartment positions have been marked up, these can be extended downwards onto the roof plan to give the rain strip and vent positions.

The underframe will need to be shortened equally at each end and by a very small amount, so that it fits snugly between the body ends. The underframe detailing for brake rods and steam pipes is best done before the whitmetal castings are fixed, I made a horrible mess of the dynamo when the soldering iron got too close. On this coach the battery boxes are on the compartment side and the dynamo on the corridor side at the third class end. The belt for the dynamo, made up from some brass strip, can go on once the bogies have been installed.

The 9ft plate bogies supplied with the kit have cast whitmetal steps which are not cor-

rect for this coach, so six stepboards for each bogie will need to be made up. I used 2mm wide brass strip, 8mm long, for the stepboard and 0.5mm wide strip for the supports, two for each stepboard. These were then soldered to the brass framework of the bogie, their positions being marked from the whitmetal bogie sides before they were fixed.

Retrieve the remains of the compartment side of W8 from the scrap box, carefully remove the glazing bar from the lavatory window, and glue or solder it to a droplight frame for fixing to the third class lavatory window — the first class one is already on the W8 side. If you use the Comet gangways, the joint at the top of the whitmetal castings can be hidden under a strip of black crêpe paper to produce a better effect.

The interiors of these coaches were: third class — mahogany woodwork with red/black repp upholstery; first class — walnut with sycamore panels and dark brown upholstery. Stephen Williams lists in his book *The 4mm Coach, Part 1* suitable Humbrol paints to achieve the effect of various woods used in coach interiors. A set of Tiny Signs carriage prints and antimacassars, made from strips of

tissue paper painted white, were added to the first class compartment seats.

Having laboured to produce an ex-works finish, it seemed a shame to muck it up. The other six coaches in the rake are unweathered, so this one stayed the same.

Coach building is very rewarding, but it does take time — I seem to have been building this rake of coaches forever. The time taken to build one of these coaches is probably between 50 to 75 hours, and if time spent looking at the model and thinking about it counts, it would most likely be many more. I have built nearly all the pre-1936 GWR coaches in the Comet range, and each has been a pleasure to make. The composite covered here fills the gap in the range of 70ft South Wales stock from Comet. They do left- and right-hand brake thirds (Diag. D83, D84), all thirds (Diag. C46), and restaurants (Diag. H26–29), all of which can be built to any permutation of flat-end/bow-end. It would be nice if they would produce an etching for the bogie steps to include with the 70ft coaches — after making 84 of the blighters (12 per coach) I've had enough repetition therapy to last me quite a while.

One of the most annoying faults that can develop on any layout, home or portable, is the dreaded 'dead track'. It normally presents itself when a locomotive is happily going about its business — then stops for no apparent reason. The almost inevitable pushing backwards and forwards with an overscale hand then takes place, which occasionally will reveal poor pick-ups or a dodgy fish-plate between rails.

But if you cannot find the cause, do you make a quick lash-up from a bulb, holder and bits of wire, or reach for the multimeter, then realize there is no place to stand it on the layout?

My little gadget will immediately show if you have a DC supply to the track, its polarity and also if you have got an AC current leaking onto your track supply.

Construction is simple — no complication with linear, TTL or CMOS chips, in fact not even a single transistor — just two 5mm red LEDs plus one resistor, a short length of brass or N/S strip and a few scraps of styrene board.

If you examine the majority of LED devices, you will discover that the two wire leads are normally of different lengths; if the longer of the two (anode) is placed on a positive line, and the shorter (cathode) is placed on the corresponding negative line, then current will flow and light will be emitted. No light is emitted if the leads are reversed. A word of caution, however, if you try this straight onto the normal 12 volt track supply, the LED will promptly self-destruct,

having exceeded its designed voltage and current limits. In order to be of use, the device must have a suitably high value resistor in series with one of its leads. I use 620 ohm half watt — simply because I bought a 'surplus' job-lot umpteen years ago, but any value between 500 to 1000 ohms will do, and I suggest 620, 680 or 750 ohms.

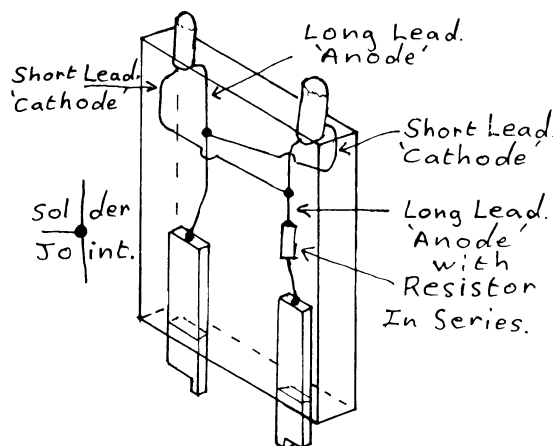
Incidentally, some LED leads are the same length; the negative is then indicated by a flat on the case beside the appropriate lead.

For assembly you must connect together a cathode and anode from each LED for one terminal, then the remaining anode and cathode for the other terminal — only one pair needs to be connected in series with the

## THE GADGET

### *A cheap and simple track power testing device*

by J. ALAN COOK



The 'complex' wiring circuit!

resistor. I trust that the two photographs and the drawing are self-explanatory.

For the styrene case, I used a central spacer of 80 thou/2mm white styrene, with two inner faces cut from 60 thou/1.5mm, the outer faces being coloured styrene – I used red for easy location. All five pieces are 30mm × 60mm, but vary them if you wish.

A length of brass strip about 2mm × 5mm was used for the pick-up terminals (mainly because it was the same thickness as the central spacer) but any suitable piece will suffice provided the terminals are a tight fit and don't waggle around. The space between the terminals is obviously dependent on your own track gauge, and the bottom 'tab' must fit easily inside crossing flangeways.

Of necessity, you will have to do some hacking and gouging in the styrene sheet pieces until the various components fit snugly. When you are happy that everything fits OK, clamp the three inner pieces together and run liquid cement between the layers. Leave clamped together until firmly set, then carefully cement each outer face on in turn and you will finish up with clean outer faces without any solvent run marks. Wait a couple of days, then file or sand the edges to give a smooth finish and then round off the corners.

When placed in contact with both rails with normal (5 to 18 volts) track supply, the LED above the positive rail will light up; if the polarity is reversed then the other LED will light up. If a section is dead, then obvi-

ously no lights will show. By moving the device to the ends of a dead section and swivelling each terminal in turn between butting rail ends, you can rapidly discover which rail is dead and investigate from there. If both lights come on, then you have AC (e.g. from a point motor supply) leaking into the track supply.

The gadget doesn't seem to respond to the 'high voltage/low current' output of track cleaning circuits, which are effectively shorted-out by the gadget's relatively low impedance.

**Photo 1.** *The various 'bits' and how they should look when finished.*

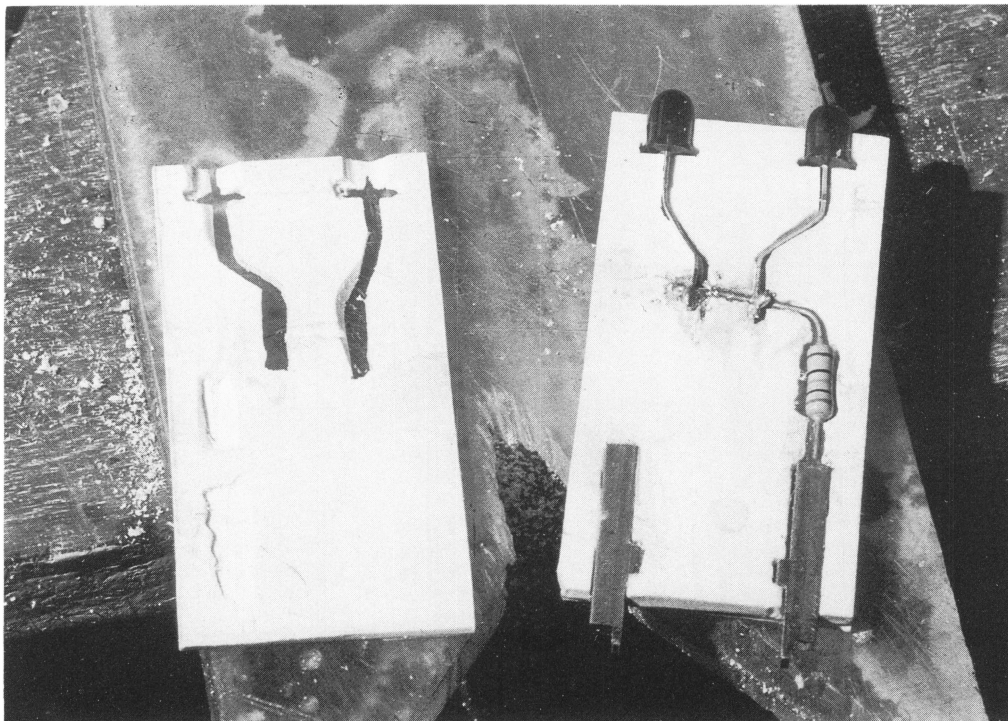
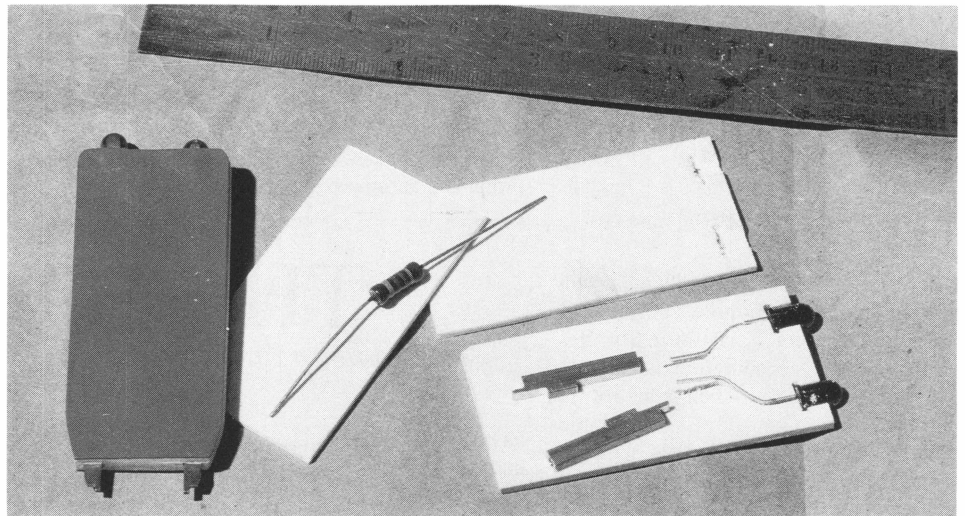


**Photo 2.** *Hacking the styrene sheets until a smooth fit is obtained.*

# A THORNYCROFT FOR PENDON

by GEOFF KENT

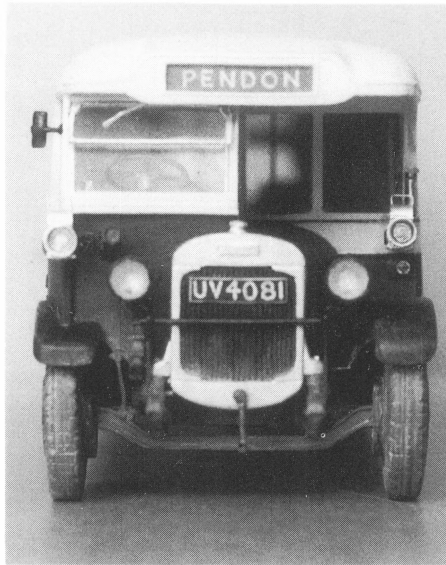
It was in 1928 that the GWR began a motor coach service through the Cotswolds between Oxford and Cheltenham. To run it they ordered a batch of new vehicles of both Gilford and Thornycroft manufacture. The Great Western had long favoured Thornycrofts for both goods and passenger work, and continued to patronise the Basingstoke firm for a number of BC Forward single-deckers, some with 32-seat bus bodies, and some with 26-seat coach bodies expressly for the new service. The coaches were bodied by Vickers of Dartford to a standard in keeping with their longer-distance role, with carpets and curtains, and well-upholstered, high-backed coach seating.

The Gilfords, of type 1660T, were bodied by the chassis builder's subsidiary, Wycombe Motor Bodies Ltd., and were if anything even more roomy and luxurious, carrying only 22 passengers in leather armchairs arranged in 2+1 fashion. If the name of Gilford is less than familiar today, this may be because they went out of business in the mid-thirties. At the time, however, they were a major player – for a while, perhaps, *the* major player – in the design of fast passenger chassis, and it isn't so surprising that the GWR should have chosen them to supply at least part of the vehicle pool for what was clearly intended to be a prestige service.

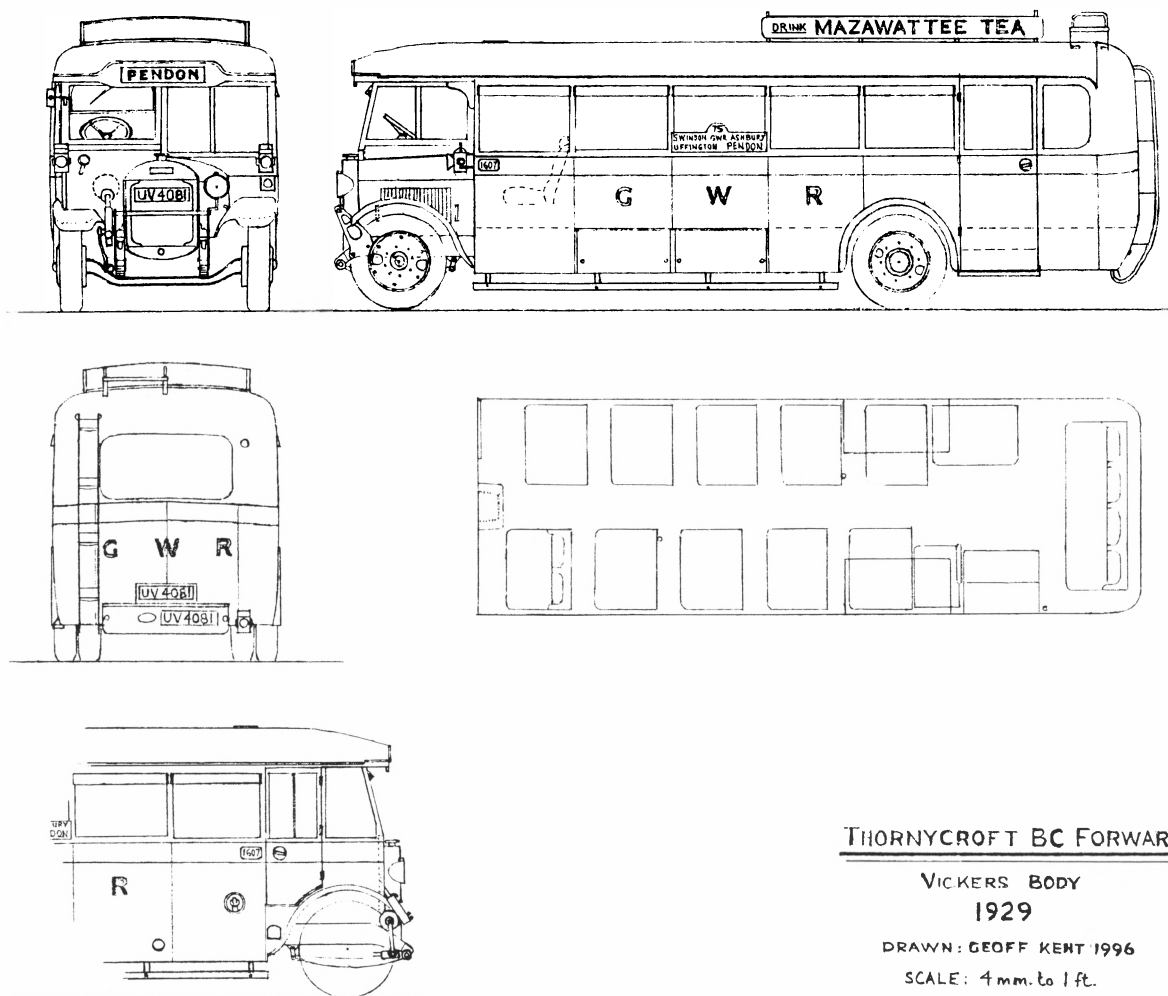
The service didn't last long, however, at least under GWR auspices, for the early 'thirties saw the break-up of the railway's bus services, which were hived-off, together with the vehicles, to a variety of other undertakings. So when Roye

England photographed one of the Thornycrofts, UV 4081, GWR fleet number 1607, outside Swindon station on 20th August 1932, it had already passed to Bristol Tramways, (although still in GWR livery), and had been demoted to stage carriage work. Though barely three years old, it was working route No. 74 from Swindon to Lambourn, and when, not long afterwards, he photographed it again on service 75, it had lost its curtains and was beginning to look rather down-at-heel. Nevertheless, his association with it made it a natural for the Vale scene at Pendon, with route 75 duly altered to terminate there rather than at Uffington.

Quite by chance, in addition to these pictures, three other views of the same vehicle when new, including a shot of the interior, feature in OPC's 1982 publication *Great Western Road Vehicles Appendix*, by Philip J. Kelley. Close comparison of these with Roye's photographs indicate that a number of minor changes had taken place to the vehicle in its short life. For example, it had lost its rear mud-







### THORNYCROFT BC FORWARD

VICKERS BODY

1929

DRAWN: GEOFF KENT 1996

SCALE: 4 mm. to 1 ft.

flaps and the destination board brackets below the nearside waistrail. However, it had gained larger brackets astride one of the windows on each side, and an advertisement on the luggage rack. In terms of livery detail, it had lost the full stops to the letters 'GWR', but had acquired black coachlines on the waistrail beading. The driver's mirror and the horn position had changed, and there seem to have been other very slight alterations in the cab windscreen and destination blind areas; however, these are none too clear, and although I wanted to model the vehicle as seen by Roye, I felt safer ignoring these last details. I also determined to restore the GWR fleet number plates which it had presumably only lost earlier that year as a result of its transfer of ownership.

Other back-up information supplied by Austin Attewell at Pendon included a complete written specification for the BC

Forward together with a chassis drawing. This proved to be of a slightly earlier design, but fortunately Nick Baldwin's *The Illustrated History of Thornycroft Trucks and Buses* (Haynes, 1989) has a similar drawing incorporating the modifications that had been introduced by the time No. 1607 was delivered in July 1929. Other photographs of contemporary Thornycrofts in general, and BC Forwards in particular, were found in a variety of road vehicle periodicals in my own collection. Finally, a considerable amount of background information on the history of the routes and the vehicles is contained in *Railway Motor Buses and Bus Services in the British Isles, 1902-1933*, Volume 2, by John Cummings (OPC, 1980).

Those of you who have read my article on building road vehicles from plastic sheet (MRJ Nos. 40 and 41) will know

that I like to prepare my own drawing of an intended project, and this is reproduced here. The discipline of studying as many photographs as you can get hold of as a preliminary to any actual modelling is important even if a satisfactory drawing already exists. If there is no ready-made drawing, as here, of the body, nor any elevation of the front of the chassis, it's vital, especially as until now I had never built a model either of a Thornycroft, nor yet of a bus quite as old as this one. Having said that, by the late 'twenties the evolution of bus design had reached something of a plateau, and apart from the introduction of diesel engines (both the Thornycrofts and the Gilfords had petrol engines), further major developments didn't take place for twenty years or more. Consequently, as a young enthusiast in the mid-'fifties, I could still see occasional vehicles of similar age and style to No. 1607 – although

it has to be said that hardly any of these survivors were Thornycrofts – and newer half-cab buses of the same general design could be seen on the road for many years after that.

Incidentally, the word 'Forward' in the model name signifies only that the driving position was alongside and above the engine, rather than behind it: 'forward control' as opposed to 'normal control'. The letters 'OT' in the Gilford designation stand for 'overtake', which means the same thing. Although it had been less common before this time, from the late 'twenties onwards forward control became the favoured pattern for full-sized buses, and until the general acceptance of underfloor and rear-mounted engines after WW2, this usually went hand-in-hand with the half-cab layout typified by No. 1607.

### THE MODEL

The first stage of construction was to mark out the main body sections on

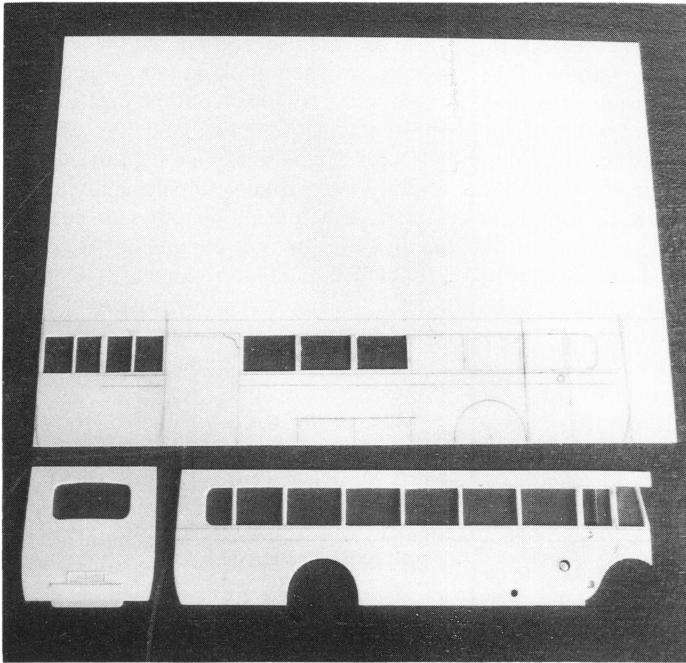
styrene sheet of appropriate thickness. As usual for a bus of traditional construction, I used 20-thou, and drew the outline of the sides, rear and front bulkhead in pencil, remembering to adjust the width of the transverse panels to fit between the sides, and to allow some extra height above the windows to obtain a good solid joint with the roof.

In fact, I soon modified two aspects of this specification; for reasons that will be made clear, I reduced the thickness of the front bulkhead to 10-thou, and because the side window-pillars taper in very noticeably towards the top, I added a lamination of 10-thou behind the sides up to the top of the pillars, and chamfered this back progressively from the waistrail upwards. I could, of course, have chamfered the outside of the pillars on the original 20-thou material, but I was conscious that I would also need to rebate them at the top to accept the glass weather strips, and if I hadn't thickened them up to begin with, I'd have had nothing left.

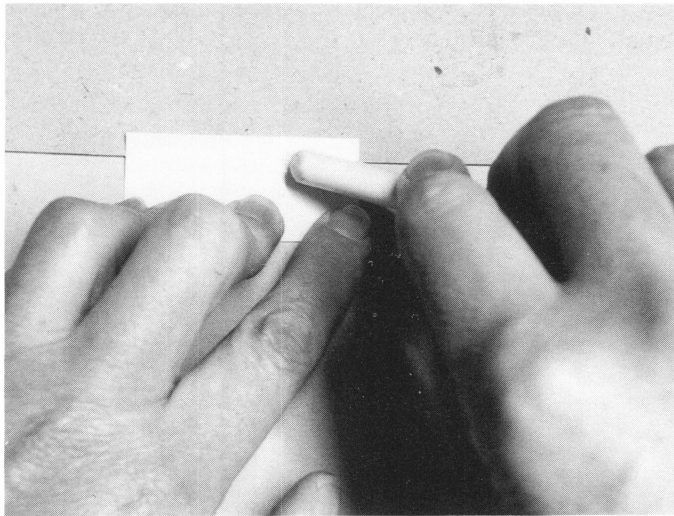
However, before separating these parts from the main sheet, I cut out the window openings; when marking out a bus or carriage side, I try to leave some meat around the parts in order to avoid the material stretching, which it is inclined to do very slightly every time you make a cut in it. If you have a line of windows to cut out, each little bit of expansion becomes cumulative, and you can easily end up with a banana-shaped workpiece. This is more noticeable the longer the piece, of course, and can be quite a problem on a bogie carriage side.

Most of the windows on No. 1607 are square-cornered, so cutting them out is fairly straightforward. I cut as close as I can inside my pencil lines, and file back to them where necessary, checking all the time that the openings are square and properly aligned top and bottom. With rounded corners I generally make straight cuts across them, using a rat-tailed file instead of a square one to round them off. Finally, I run a file gently along each edge





*Various stages in the marking-out, cutting-out and initial detailing of the main panels. As described in the text, the front bulkhead (above left) was later remade in thinner material rather than the 20-thou sheet shown here.*



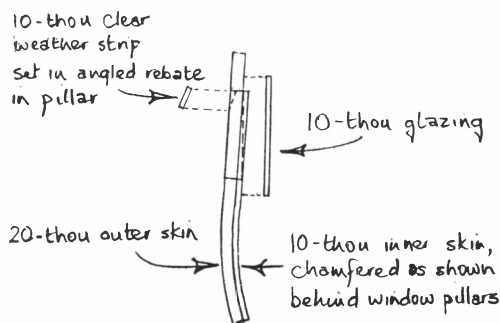
to get rid of the slight burr you get whenever you make a cut in styrene, or file it back as just described.

Having now separated the parts from the main sheet, I cut and filed the semi-circular openings for the wheel arches, and scribed the outlines of all the doors using a scraperboard knife. Only at this stage did I form the turn-under of the panning below the waistrail and add the 10-thou inner skin, which initially I applied as a plain rectangle, afterwards cutting out the various apertures using those in the outer skin as my guide. A spin-off from adding this second skin to the sides was the element of reinforcement that it gave to the turn-under. Both laminations were curved by rubbing along the back with a rounded tool (in my case the metal ferrule on the end of a Parker Rollerball) against the edge of a sheet of cardboard. It's important to curve both pieces separately before laminating them together: in this way each one prevents the other from trying to straighten out over time.

It's debatable how much solvent you should use when laminating in this way; personally I prefer to use more rather than less to ensure a good joint with a minimum of air gaps, but the danger with this, especially if you're using thin sheet, is that the material softens and crinkles, sometimes long after you think it should have safely stabilized. I think it may have something to do with the strength of the solvent, and can only say that with Mekpak I get very few problems of this nature.

The glazing is done with 10-thou plastiglaze, other options are Cobex or Perspex – or glass of course – all of which give a flatter surface than plastiglaze, and therefore a truer reflection, but suffer from greater thickness, leading to problems in the corners where thin window pillars make the gauge of the material hard to disguise. The interior detail becomes rather more pinched as well. However, I have lately been told that Perspex is made in sizes down to  $\frac{1}{4}$ in, or about 16-thou, and it might be worth one or two of the more enterprising suppliers investigating this further.

In principle I try to use as few pieces of glazing as possible, and to glaze each group of windows with a single strip of material, cut to give an overlap of about a millimetre top and bottom. The amount of overlap is not usually critical except at those corners where there are narrow win-



CROSS-SECTION THROUGH BODYSIDE



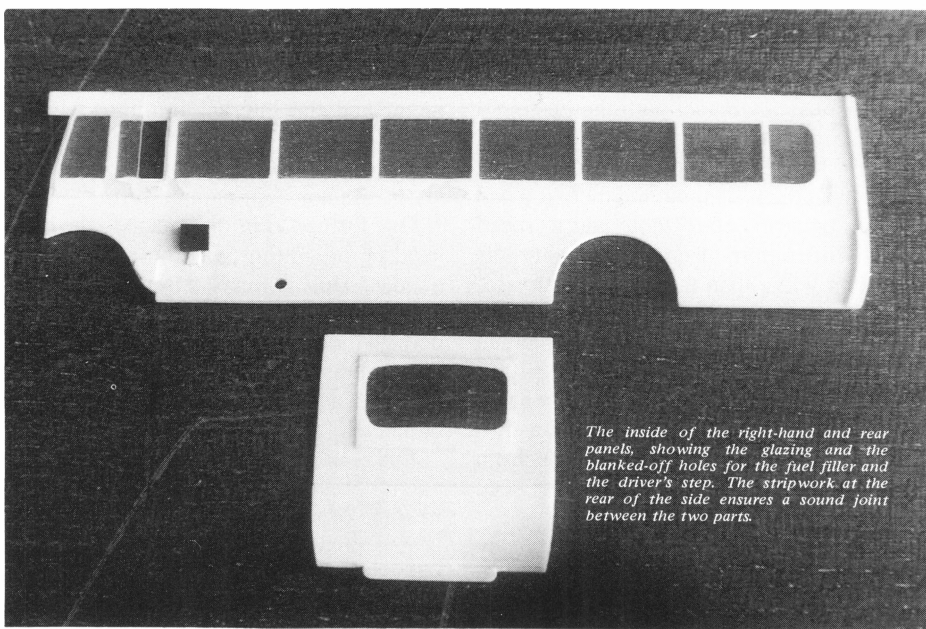
dow pillars, for instance at the front corners of the driver's cab. Here the glazing needs to be trimmed very accurately to give a rebate of 10-thou for the windscreen to sit in. Similarly, on the nearside a rebate needs to be left to accommodate the front bulkhead.

On the offside the glazing also has to be bent slightly to allow for the turn-in of the cab side forward of the bulkhead. Plastiglaze will go cloudy if you try to bend it sharply, but if you're able to hide the bends behind the cab window pillars, you can get away with it. In fact, as far as I can tell from the photographs, although the bodyside itself curved progressively inwards, the panes of glass themselves were flat, and kinking it with pliers at the pillars enables you to simulate this. Or you could make each pane separate, of course. Either way, you will probably need to make up the slight gap between the flat glazing and the curving bodyside with a sliver of 10-thou chamfered progressively towards each end.

A certain amount of exterior detail can be added at this stage: door handles and fuel filler, for instance, which are set in holes of appropriate diameter, backed by small squares of plastic (if you think ahead, you can use the glazing to blank off the door handle apertures). The raised rim around the fuel aperture is a circle of 5-thou made by drilling a hole of equal diameter in a piece of sheet, and then chopping round it as neatly and closely as possible with the sharpest blade you can find, final cleaning up being done after the rim has been stuck round the hole and set hard.

Now is also a good time to add the glazed weather strips to the tops of the side windows. Each of these is a separate piece set into angled rebates cut into the tops of the window pillars. With pillars as narrow as those on No. 1607, each rebate needs to be no more than about 0.3mm wide, and this is arguably a job that would best be done before the glazing proper is attempted, in order to avoid the risk of the knife slipping and scratching the glass. On the other hand, there isn't much margin for error in carving the rebates out of a 1mm wide strip of 20-thou that's unsupported by any glazing material so it's really a case of six and two threes.

One recurrent problem with plastiglaze in my experience is that, however sharp your knife, you tend to get a small amount

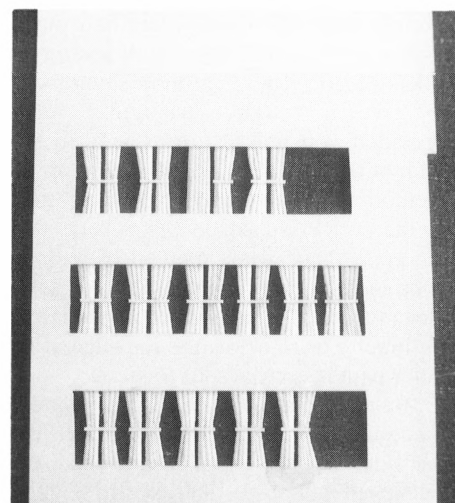


*The inside of the right-hand and rear panels, showing the glazing and the blanked-off holes for the fuel filler and the driver's step. The stripwork at the rear of the side ensures a sound joint between the two parts.*

of crazing close to the edge of any cut you make in it. Normally this isn't seen of course, but in this case all the edges are visible, and the only reliable way I've found to get a clean edge is to cut the material about half a millimetre oversize (all round in this case) and to trim it back carefully with a fine file.

On the real thing each of these weather strips is set in a polished (chrome?) frame, and I suppose I should have made some attempt to reproduce this in relief. But I felt that even 5-thou would look overscale here, so I determined to simulate the frames with silver paint applied with a bow pen.

Another item of detail that I thought was best fitted before assembling the body shell was the curtains. Except for the forward-facing lights, all the windows in the passenger compartment had them, although Roye's photograph of No. 1607 at Wanborough shows that they were removed after a while. The omission of curtains at the front is curious; I would expect the driver to have a blind in his cab that he could lower to block out extraneous light, but why no curtains behind the engine bay? The answer may be in the coach-builder's drawing of a Vickers-bodied Guy saloon reproduced in *GWRV Appendix*; although, being a bus rather than a coach, this vehicle had no curtains, it did have blinds both in the cab and behind the nearside forward-facing window. There is no obvious sign of a blind on the interior photograph of No. 1607,



*The curtains immediately prior to painting. A narrow strip of the 10-thou sheet enables each pair of curtains to be mounted clear of the glazing at both top and bottom.*

but perhaps it's concealed behind the framing above the window.

The curtains are very obviously creased or pleated when gathered back to the window pillars, and I was none too sure how to reproduce this feature convincingly. I experimented with various thicknesses of tissue and foil, but only succeeded in making them look just like scrunched-up bits of tissue or foil. In the end I went back to good old plastikard: I filed a shallow vee in the end of a strip of 20-thou which I had cut about 10mm wide (to allow an overlap above and below the window openings), and then scribed a series of grooves to simulate the creases.

A narrow strip of 5-thou across the middle represented the tie-backs or hooks.

In order to ensure that no part of the curtains was in contact with the glazing – because of the need to prevent solvent running between the two when the time came to fit them – I mounted them top and bottom on strips of 10-thou, and to speed up this operation, I cut a series of slots just a bit wider than the depth of the windows in a piece of 10-thou sheet. I attached the curtains to these, and painted them en masse before cutting them out for fitting. Mostly they were grouped in pairs, with a gap of about two-thirds of a millimetre between each pair, because from some angles you can see daylight between them.

With the curtains fitted, I was ready to put together the basic body shell. Although the rear corners are quite heavily rounded, the back and the sides are initially assembled with plain butt joints. These are then beefed-up with a series of fillets of 20-, 30- or 40-thou square strip to give a roughly triangular infill. Provided you make sure as you go that each of these joints is sound and solid, the method will enable you to file the corners to the correct shape on the outside with the appearance when painted of a single continuous corner panel. Try to get a clean top surface to these infills, ideally a millimetre or so below the top edge of the outer panels, for the roof to sit on.

As mentioned earlier, I had initially made the front bulkhead of 20-thou, like the sides. With the glazing attached, this thickened it up to 30-thou. So far, so good. However, the interior photograph of No. 1607 shows a sliding door on the offside into the driver's cab; close inspection of the picture reveals the words 'Emergency Exit' above it, and an examination of the Guy drawing referred to just now indicates that this was one of the idiosyncratic features of the Vickers body design. Whereas most coachbuilders incorporated a reasonably-sized emergency door giving direct egress from the passenger compartment, Vickers apparently expected people to clamber first into the driver's cab, squeezing past the back of his seat, and then out through his own low, narrow doorway.

In any event, the addition of the extra thickness of material in the model to represent this sliding door and the runners above and below it would have made the original bulkhead too thick to be hidden, edge-on, by the offside window pillar.

Even with the outer skin reduced to 10-thou, and the sliding door to 5-thou, there was barely enough margin of concealment, and the internal framing, which I had originally intended to include in relief, had to go, being represented rather less satisfactorily in painted form.

One further addition I made to the bulkhead before fitting was the driver's grab handle. This is very clearly visible just inside the (open) sliding section of the cab door window, and I epoxied a bit of 32swg brass wire into blind holes drilled as close as possible to the edge of the bulkhead.

Only after fitting the curtains and assembling the body shell did I notice that in some of the windows, but not others, it is just possible to see the lower curtain rail. This is because in those windows where the rail is invisible, the lower edge of the frame is slightly higher, something else I had originally missed. I'm pretty sure that this denotes that these were drop windows; photographs of similar vehicles in Cummings' book show them with windows lowered, and the Guy also had this feature, though I could find no positive written reference to it in respect of No. 1607, which had them all raised when photographed.

Anyway, I was now faced with the twofold problem of representing the rails and raising the bottom edge of the other frames. The second part of the problem was fairly easy: a narrow strip of 10-thou stuck back onto the lower ledge, and faired in when dry. The rails were harder. 33swg nickel-silver wire suggested itself as the material to use, being more like polished brass (if that's what they were) than brass itself, which would tarnish. But how to fix it? It needed to look as if it ran through the curtains, but these were solid and only 20-thou thick. If I glued it to the front of the curtains it wouldn't stand close scrutiny; if behind, it would be too far away from the glass, even if it was set into scribed or gouged slots (I did in fact try this, but wasn't satisfied with the result). In the end, I cut each piece exactly to fit between the relevant pairs of curtains, and Evo-stuck each one to the top edge of a suitably-sized strip of 10-thou, which I then also Evo-stuck to the surface of the glazing immediately below the window aperture. I used Evo-stik for this partly because I had already painted the inside, and partly for the same reason that I'd mounted the curtains clear of the glazing – solvent would have run conspicu-

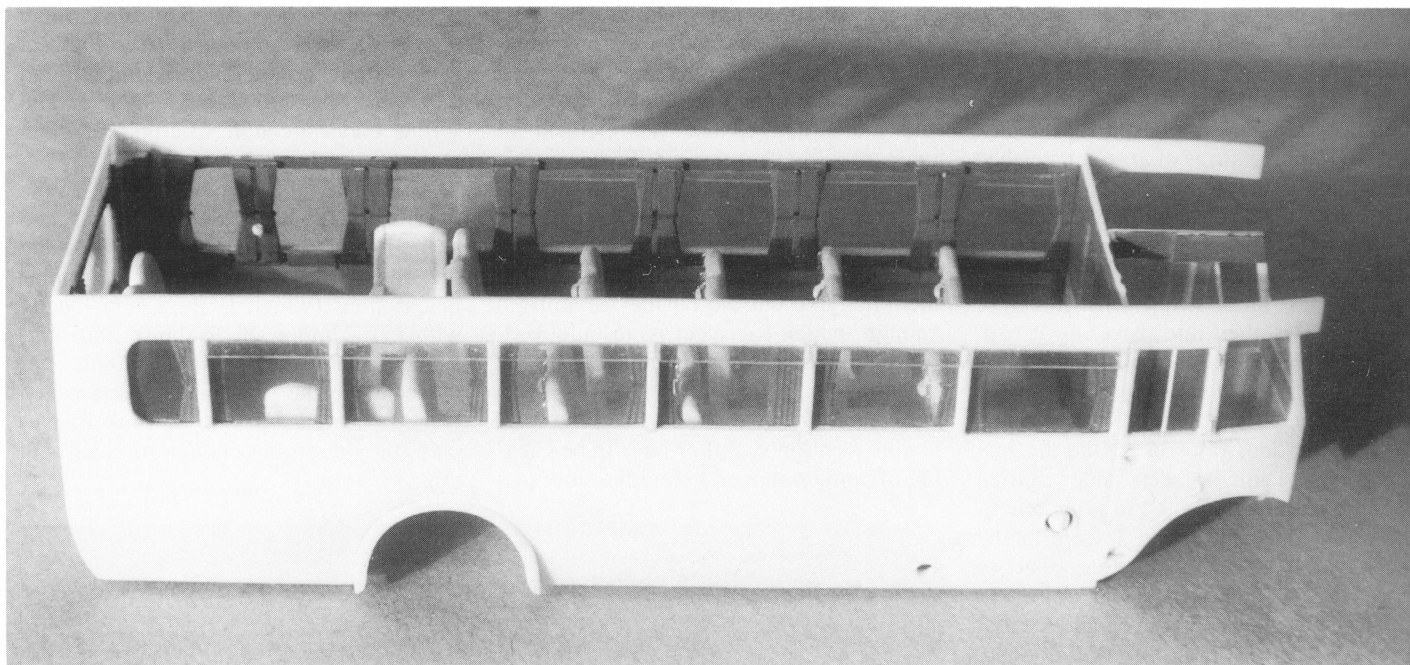
ously between the wire and the glazing material if the two happened to touch. The top curtain rail is similarly visible, I realized, wherever it isn't obscured by the weather strips, so the four rearmost windows were attended to in the same fashion.

Before I could go any further with the interior of the vehicle, I now had to make the mudguards, or at least the three of them that protrude into it. The fourth one, the front nearside wing, is mounted against, and takes part of its shape from, the engine cover, and can't be properly profiled until this has been made and fitted. My basic method for making mudguards is to wrap strips of plastic about 7mm wide round a piece of tube or dowel, and to hold them there by tying a piece of rag round them while soaking them in boiling water. At the same time I also curve lengths of 20-, 30- and 40-thou microstrip which, glued to the edge of the wider strip, form the valance or flange on the inside of the arc. The diameter of the tubing is not absolutely critical because the curvature can be adjusted while this joint is setting, and once you're satisfied that it's about right, the pieces can be held in a hand vice, or something similar, until set. Even then they remain flexible enough to allow a degree of tinkering.

The job is slightly more complicated where a reverse curve is involved, as with the flare at the bottom of the Thornycroft's two front mudguards, but the principle is the same: even if the two parts, mudguard and flange, have been 'boiled' into one shape, they can be persuaded with pliers and fingers to go the other way, and to stay there until the joint goes off. Once set, the top edge can be rounded with a file to the final outline.

In most cases, all that now remains to be done with the rear mudguards is to fit them to the cut-out in the bodyside, and to a corresponding slot in the floor of the vehicle, with a half-moon of 20-thou under the inner edge, partly for support and partly to prevent daylight being seen behind the wheels. In this instance, however, for reasons which will become clear, I wanted to make the interior removable, so I made each of these mudguards in two pieces. As a result, the part that you can see – i.e. the bit attached to the bodyside – is only about 1.5mm wide, little more than the width of the strip that forms the valance.

The front mudguards, particularly the nearside one when the time comes to



*The basic body shell assembled, together with the removable interior.*

complete it, need a bit more work to form the flared inner wall. I know of no other way than to build up an approximate profile using odd chunks of material, usually 20-thou, to give enough meat to file the outer side to shape when dry, without cluttering up the inside so much that it's visible or likely to obstruct the wheels, especially if these are expected to steer. This is more of a job with the nearside wing; the offside one only needs to be shaped sufficiently to fill the gap between the top of the arc and the cab floor, in this case about three millimetres, and being largely invisible, except right at the front end where it merges with the dash panel, is less critical in terms of its final shape.

With the visible part of the rear mudguards fitted, I could now complete the interior of the passenger compartment. But first I had to work out the layout of the seats, which was not clear from any of the sources available to me. All they told me was that the coach seated 26 passengers. By examining all the photographs, it seemed that 16 of them were accommodated in eight forward-facing double seats ahead of the rear wheels, four on each side, with apparently a further four on a bench seat across the rear. You can also see that immediately behind the wheel arches there is an inward-facing double seat on the offside, and a single on the nearside in front of the door. The exterior pictures show that the seats in front of these on both sides were raised to clear

the wheel arches. Now here's the problem: to make 26, one of these must be a single seat and the other a double; the exterior shots are unclear, but in the interior view you can just see *both* corners of the backs of the raised seats, which suggests to me that both of them were in fact doubles. Is it possible that the single inward-facing seat on the nearside was an occasional one, perhaps normally occupied by the conductor/attendant? In the only shot that shows it, it seems not to have the high rounded back that all the others do, which could be significant, but I'm not convinced that I'm right to have actually put a 27th seat in the model.

However, it is possible to tell with certainty from the inside photograph that the seats are slightly staggered: those on the offside are set back by six to nine inches, presumably to give better access to that awkward emergency door. As a consequence, only the single inward-facing seat needs to be raised like the pair ahead of it to clear the wheel arch below it; the offside pair, being slightly further back, are at the lower level.

As modelled, the seats themselves are pretty basic: two pieces of 60-thou, filed and scraped to an approximate representation of the cushions, form the backrest and the seat proper. The backrest is extended down to the floor to form the rear legs. There are no front legs on the model; thankfully almost nothing below window level is visible from normal viewing

angles, even at the closest of quarters. The wings are additional strips of 30-thou stuck to the edges of the backrest to give an overall width of 10–11mm per pair.

The rear of each pair of forward-facing seats was fitted with quite ornate grabhandles, circular chrome (?) ashtrays and seat number discs. 32swg wire epoxied into  $\frac{1}{4}$ in holes formed the (very representational) handrails, the other fittings being cut from pieces of square strip rounded with a file: 60-thou for the ashtrays, the top half recessed with a blade, and 15-thou for the number discs. Full-height stanchions were attached behind two of the seats, one on each side of the aisle. These are 26swg nickel-silver wire set into holes in the roof and floor, and bracketed to the seat backs by tiny noggins of 20-thou, pre-drilled 0.45mm, and rounded off a bit when set. Finally, the vertical grabrail on the rear door post, (which is conjectural, but the Gilfords had one there, and I would be surprised if the Thornycrofts didn't have something of the same sort) is another length of 26swg wire mounted at the top in a rather overscale knob 'turned' with a file from a rounded strip of 40-thou, and at the bottom in a rather more functional lump of the same attached to the low-level mounting strip for the floor pan.

The floor itself is flat, and sized to fit as snugly as possible all round. It's designed to slot in from underneath, which means that it must fit between the bottom edges



of the turned-under bodysides. Since it actually sits some 6mm higher than these, where the sides are somewhat wider apart, horizontal strips of 30-thou are stuck to the inner faces of the sides to fill the gap, and overlapping strips of 40-thou attached immediately above them to give a ledge of sorts for the floor to butt up against. Of course, the seats need to be positioned to give them just enough clearance to squeeze past these strips when the floor assembly is slotted into place. As it happens, the clearance required for the glazing plus curtains is just about the same.

I made no attempt to reproduce the step well by the doorway, since, like the seat supports, it can't be seen under normal conditions, though I did add a hypothetical armrest to the single inward-facing seat next to it (the conductor's seat) to stop the occupant falling into it. Something else I might have included, but didn't, was a draught-cum-modesty screen in front of the rearmost nearside seat. This would have been a fairly standard fitting on later vehicles, I think, but there is no sign of one in the rearward-looking interior shot of the Gilfords reproduced in *GWRV Appendix*, so perhaps the era of short skirts was too new a phenomenon in 1928/9 for this issue to have come to the fore.

All in all, there are a few imponderables about the layout of the interior, and I have to say that I was, and am, no more confident about the interior colour scheme. The only information we have is a note in Roye's diary that the curtains were green. What shade of green, he doesn't say. As for the seats, it's only possible to tell from the interior view that they were in two shades of moquette or velour, but the rest is guesswork. I opted for matt mid-green for the curtains (which I had, of course, painted before fitting), and chocolate and tan for the seats, together with tan for the floor covering and the side panels below the window frames, but I stand to be corrected.

Because of these areas of doubt, the floor pan complete with seats has been left removable: it clips between two horizontal strips of 40-thou attached to the rear panel, and at the front is screwed to the flywheel cover on the bulkhead which is a solid lump of plastikard drilled and tapped 10BA. In reality this is a raised, rounded bulge in the floor right at the front of the aisle. There are one or two

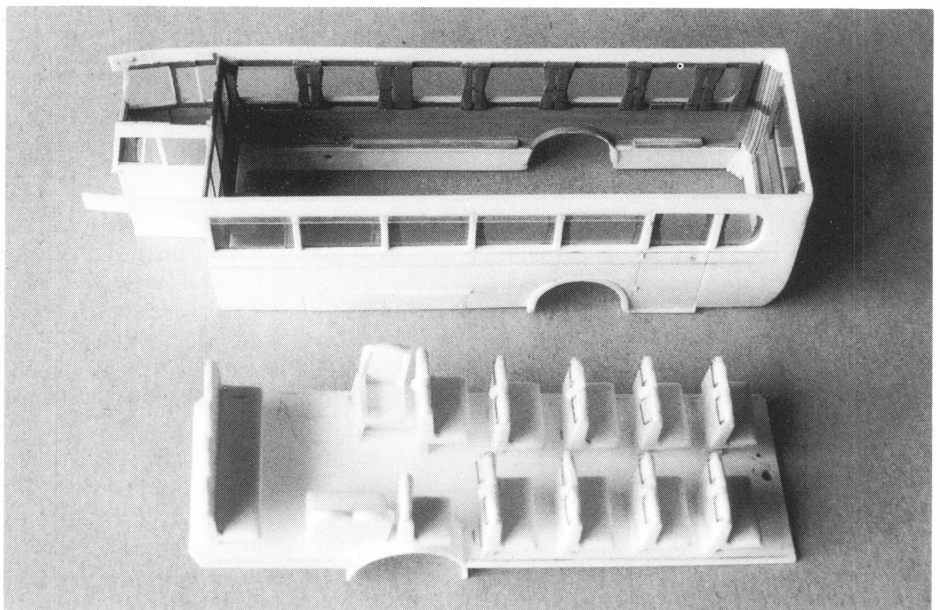
awkward implications arising from this, in addition to the effect on the rear mudguards already described. First and foremost, the sides can't be stuck to the floor, and the structure loses an element of inherent strength as a result. Perhaps more importantly, you can't rely on this to ensure that the sides remain straight and true. Only time will tell whether they need to be tied together in some way to stop them bellying out. So far they seem rigid enough, which I suspect is an unlooked-for bonus from the laminated form of construction.

Second, the two floor-to-ceiling stanchions mentioned earlier have to be capable of being removed before the floor pan

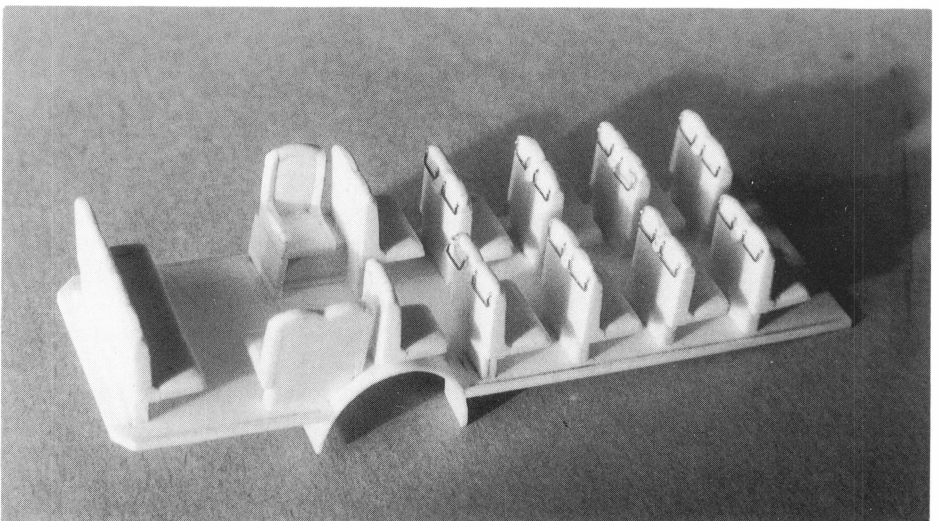
is taken out, otherwise they might force off the brackets holding them to the seat backs. So the bottom ends extend through the floor where they are bent over and sprung under a couple of crude retaining clips.

And finally, the guard rails between the front and rear wheels can only be attached to the floor rather than both the floor and the sides. So they are set into  $\frac{1}{32}$ in holes in the floor (which is thickened locally with extra lumps of 40-thou), and dog-legged out by the required amount – as indeed were the real things. Fortunately, being soldered up out of nickel-silver strip, they're strong enough to cope with this.

*To be continued in the next issue.*



*The series of fillets to enable the rear corners to be filed round can be seen, together with the mounting strips for the interior, and the split rear mudguards.*



Over the years I've constructed a fair few wagons to order and received several built by others, for painting and weathering or for fault finding. Some of the latter, when run across a table top, gently wandered to the right or left rather than in a straight line. Run along a length of track, they were inclined to twitch or click as they went and, according to their owners, were often seen to derail on layouts for no apparent reason. Having inspected these troublesome trucks, it soon became apparent that they shared a common fault – their axles were not parallel to one another. No matter what suspension system is used, be it springing, compensation or none at all, if the basic principle of accurate alignment is ignored, rolling stock will not perform as it should.

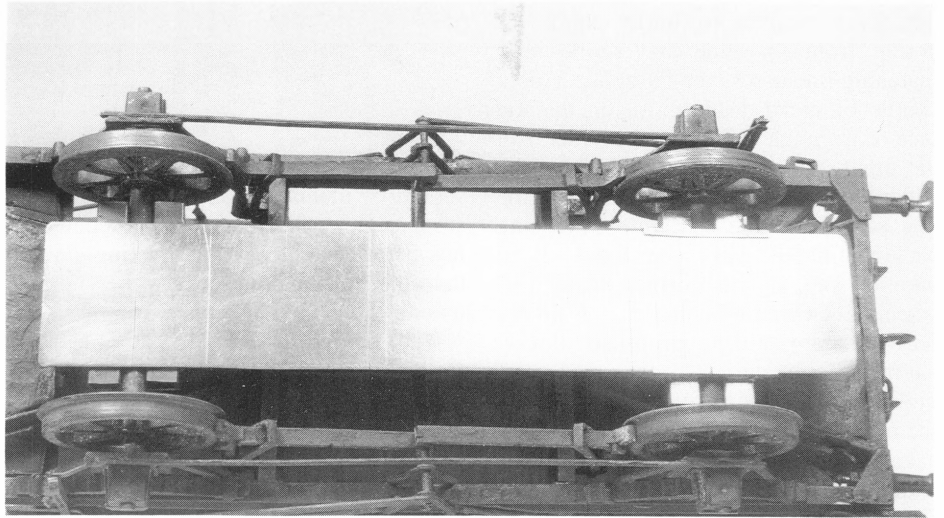
You would think it quite a simple matter to arrange a couple of axles so that they run parallel – until you actually come to do it. Many times I have assumed that two whitmetal wagon sides with axleboxes cast in, would match if placed directly opposite one another. Nine times out of ten they will, but occasionally I get caught napping and find one axlebox may be a couple of degrees out of alignment with its potential partner. This usually means carefully cutting one 'W' iron assembly from the cast side and sliding it to a more accurate location along the solebar. The trick calls for some deft manipulation as you check for parallel alignment with the other axle (which will probably already be clasped in place by its axleboxes), ensure the newly positioned 'W' iron stays vertical, carefully watch that the bearings don't ping out of their holes and disappear under the skirting board as you struggle to keep things square – and you have to hold everything steady whilst operating a soldering iron or pointing a tube of glue. Whilst all this is happening, with your fifth and sixth hands, you have to ascertain that everything lies horizontally level, then wait while it all cools down, sets, or in my case, frequently reverts back to kit form again.

If it's a rigid chassis job, you need to ensure that the wheels sit squarely upon the rails and I've never gone along with the idea of just setting a wagon chassis up on a glass sheet to ensure it doesn't rock. None of my wagons run on their wheel rims, so a sheet of glass offers no guarantees unless you are absolutely certain the flanges are all of identical depth. Glue a pair of rails to the glass instead and you

# THE RAT

## (Rolling stock Axle alignment Thingy)

by MARTYN WELCH



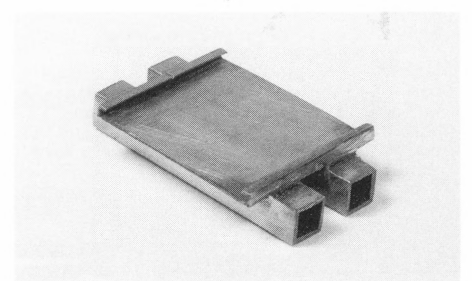
can then ensure the *treads* of the wheels sit level on the *rails* – far more relevant. Of course, if you fit compensation, only one of the axles has to be dead level, but that's another tale . . .

Even if all the 'W' irons are separately cast or moulded, there still needs to be a logical way to ensure accurately fixing them in place. Some wagon kits are designed with locating pegs or slots to overcome this vital stage, but not all manufacturers appear to have thought of this, rather preferring to make construction more entertaining than sensible. In the past, I attempted to ensure alignment by eye and a steel rule, and, even allowing for a marginal error of judgement, I was reasonably confident of success until one of my own wagons defied logic and ran like a stuck pig.

Accepting that the procedures involved in getting the chassis to sit as one would like is awkward and very frustrating at the best of times, I mused how best to overcome this. It occurred to me that if one axle could be clamped in place, another movable clamp running parallel to the first could slide the second axle into position and hold it steady and parallel whilst applying solder or glue. At the same time, prior to bonding, and with the axles locked in place by the device, the wagon could be carefully placed wheels down in order to check for horizontal and vertical levels. This latter facility would be particularly useful when fitting compensation,

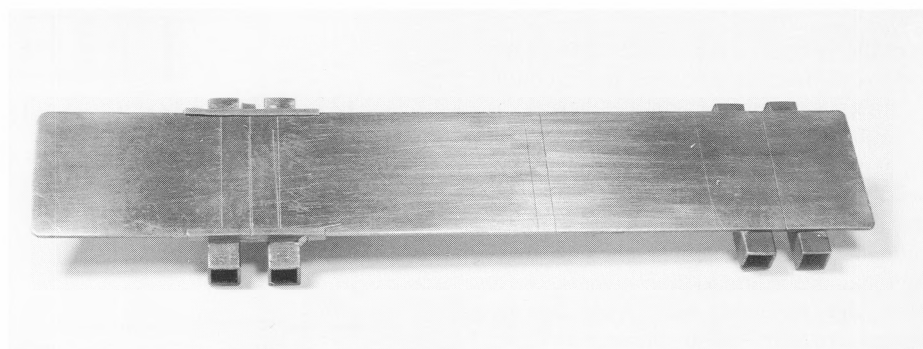
as the rocking axle would be held in the same plane as the fixed axle whilst checking these levels. The result of all this taxing thought is the RAT, whose design really came about through watching someone demonstrate the use of an old slide rule – a device which, in my school days, served no useful function to my non-mathematical mind and which was later made redundant by the arrival of calculators.

The most critical operation is soldering of the initial box-section brass piece exactly at right-angles to the length of the baseplate. Once done, butt a wagon axle up to this and then solder another section of brass in place, sandwiching the axle. When cooled down, it should be easy to plop an axle into the gap with a snug push fit rather than a force fit, but it should definitely not be loose fitting. Next, take another pair of box-section brass pieces and repeat the exercise on an offcut from the baseplate strip, then solder two lengths of brass angle 1.5mm x 1.5mm to the *outside* edges of the strip and to the box-



section pieces. When slipped onto the main baseplate, this adjustable section should slide smoothly without any side-play or twist. I have scribed a line across the top of the main baseplate dead centre where the fixed axle slots between the box-section brass. If you have a 10ft wheelbase wagon to build, mark off 70mm from this line and scribe in a matching line across the baseplate. Add a couple of nicks dead centre on the top face of the angle pieces on the slider, slot the other axle into place, and move the slider along until the nicks align with the line scribed on the baseplate. All being well, you should have your axles set up parallel and at the correct scale 10ft wheelbase. Other wheelbases are simply set by scribing in the appropriate lines on the main baseplate.

Although designed for 7mm wagons, I see no reason why other scales could not have their own version. The length and width of the baseplate is dictated by your chosen scale and the type of stock required. Length of the box-sections is determined by the back-to-back of the wheelsets, and both fixed and sliding units



should be identical if only building rigid suspension stock. However, if compensating using inside bearing rocking units, then the box-section needs to be shorter on one of the units to fit between these.

The device is equally suitable for sprung suspension, but vertical adjustment of the springing system is carried out separately and is thus unrelated to the unit's use. For longer wheelbase stock, such as single bolster wagons or passenger utility vans, a sturdier version would be required. The baseplate would obviously have to be longer, but also thicker to avoid any possibility of twisting which

may occur with the increased length, and the brass angle on the slider would need to be adjusted in depth to accommodate this extra strengthening thickness.

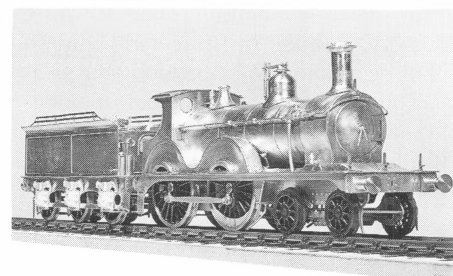
If I can make it, anyone can – it really only takes a few minutes of cutting and soldering and has proven invaluable in speeding up wagon construction. Perhaps someone who is a qualified engineer could produce it commercially in stainless steel (only because the brass tarnishes quickly) and earn me a small fortune. I could then retire to a place where the sun always shines, the golf course beckons, and the millennium bug never bytes . . .

#### SMALL SUPPLIERS FORUM *continued from page 42*

hardware is now installed, enabling production of custom order waterslide transfers to begin. His initially proposed standard range has been withheld for the time being while he concentrates on the custom work which is in great demand. A recent commission for GWR Super Saloon name panel transfers in 4mm has resulted in a sheet (C7) now being available with all eight prototype names in duplicate, priced at £5 including postage. Custom designs in 4, 7 and 10mm scales are being developed with BR Gill Sans lettering typical, although any fonts (subject to their availability) can be tackled. Details can be obtained from 206 Nuns Way, Cambridge, CB4 2NS (E-mail: john@cambridge.gov.uk).

The GLASGOW & SOUTH WESTERN RAILWAY ASSOCIATION is offering an assortment of 7mm castings suitable for most locomotives designed by James Manson. Crisply cast samples sent to us included a Manson standard chimney, safety valve, smokebox door plus separate uniquely shaped dart, Stirling type steam reverser and tender axlebox/spring. Others are available, with some cast in brass including a chimney suitable for Hugh Smellie's 22 class 0-6-0 locomotives. These are described in detail in the recently issued *Sou'West Profile No. 2* – second in a series of booklets covering various aspects of G&SWR company history, published by the Association at £2.50. Line drawings to 7mm and 4mm scale, plus assorted photographs illustrating modifications which took place during the class's history should prove useful to the modeller. Scheduled for Spring release is a series of resin cast body kits for Manson 43ft bogie coaches originating at the turn of the century and running until the late 1950s. To be produced by Sparmac Models exclusively for the G&SWR Association, prices are unknown as yet. Details of all products may be obtained from treasurer, Arnold Tortorella at 174 Newlands Road, Cathcart, Glasgow, G44 4ES.

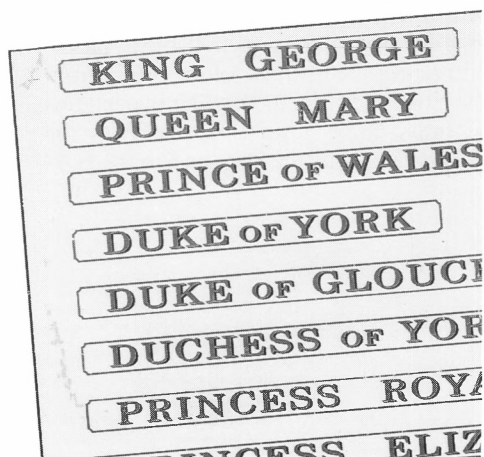
MARTIN FINNEY LOCOMOTIVE KITS has a new address: 1 Poolestown Cottages, Thornhill, Stalbridge, Sturminster Newton, Dorset, DT10 2SQ (Tel. 01963 362400). The long-awaited LNER/BR V2 2-6-2 and 4200g Group Standard Tender should be available very soon, featuring alternative parts for



*London Road Models 4mm scale kit of Midland Railway 1808 class 4-4-0.*

original swing link pony truck and the later helical spring pony truck, original monoblock cylinders and later separate cylinders with outside steam pipes, single or double chimney, and low front or high front tenders including the BR modifications to the tenders. Following the V2 will be a kit for the unrebuilt SR/BR Bulleid West Country/BB 4-6-2.

The latest addition to the LONDON ROAD MODELS range is a 4mm kit of the Midland Railway 1808 class 4-4-0. All loco fittings are lost-wax brass castings and both loco and tender chassis can be compensated. There is a choice of 2950 or 3250 gallon tenders. The loco and tender bodies are etched in brass, with nickel silver chassis. Price, including tender, is £69.50. London Road Models have also reintroduced the former Riceworks range of North British and Great Eastern Railway tank locomotives. These have been updated and the whole range is now available again.







## Therapy

I have read with interest from Day One, the many and varied correspondence which has graced the pages of MRJ. In that time, many people have expressed their views upon the standard of modelling which has been achieved by people of varying talents and standards. The hobby has many facets and gives individuals the scope to achieve in miniature whatever their hearts desire.

To put a different slant on the hobby from a personal point of view, it has also been a redeeming factor in everyday life. Having come through a very difficult time in my life, this hobby of ours has enabled me to focus upon something other than the hardships which many of us may have to face on an almost daily basis. If you, or anyone else for that matter, had suggested three years ago that I would be rubbing shoulders with some of this country's best modellers and writers upon the subject of modelling railways, I probably would have laughed at you. However, through a strong friendship with a respected modeller within the village where I live, I was introduced to the EMGS and also a local group. Even if you are not of a gregarious nature, pop in on one and give it a try, you may well be pleasantly surprised. From there I built my first piece of track and so on . . .

Next came the Broad Gauge Society and all that it represents (another excellent society) which led me to scratchbuild locomotives and rolling stock of that era. I have never attempted much more than an 'off the shelf' model prior to this. Buildings, signals and the beginning of an early 'pastiche' has commenced.

If you are looking for a cure to help you through a bad patch, may I suggest giving the hobby a go. Get out that book, start the research you meant to do, and make that model. I won't pretend it will cure all ills or problems, but taken at the right time of the day, you may just find things ain't so bad after all, and you may well meet, as I have, good honest friends who will encourage and help. I'm not looking for the sympathy vote in all this, but there are times when it can be good to share your experiences with others and possibly give encouragement yourself having come through the other end of a smoky tunnel.

G. J. E. Hitchen  
Crediton  
Devon

## Chippenham

I am writing to say how much I enjoyed the article on Roy Ball's Chippenham layout. I first got to know Roy some years ago now when the railway was in a garage closely guarded by a police dog! I believe Roy had a dog called Dublo at one time.

Since its move to its new location, I have been fortunate enough to operate the East box

on several occasions. The thing that perhaps didn't come over in the article which would be difficult to convey anyway, is the wonderful sense of railway atmosphere you get when you see it. The fact that Roy was on the footplate and the railwaylike way in which it is operated definitely help. When you look closely at the engine shed, for instance, you half expect the foreman to appear and give you a ticking off! The running is superb. Derailments are extremely rare, in fact I've only ever seen about two all the time I've known it. Remember, this is a mainline layout with complex junctions and slips, with trains running at express speeds. No branch terminus fiddle yard layout this. It certainly puts the running on many other layouts in the shade.

I know Roy has had a certain amount of help and advice from Tony Reynolds and Guy Williams, but at least 98 per cent of the layout is Roy's own work and he deserves to be congratulated on what is an absolute masterpiece of a model railway. I run an 'O' gauge garden railway myself, my main interest being building locos, and it satisfies me, but every time I come back from seeing 'Chippenham' I wish I'd built something similar.

Graham Powell  
Highbridge  
Somerset

## Mexborough

The location of the photo (Real Atmosphere in MRJ No. 108 page 34) is Mexborough, about a quarter of a mile west of the station. The train is cautiously proceeding round the severe south to west facing curve and approaching the former South Yorkshire Railway's main line at Mexborough No. 1 Signal Box. The main line from Doncaster (running through Mexborough station) trails in to the right of the loco and the train is signalled to continue on the down main (to Mexborough West and Wath) which disappears through the bridge visible between the signal box and building to its rear.

The line to the left of Burnett's – Wagon Builders and Repairs is the spur to the former Midland main line just north of Swinton, the Midland line itself crossing over the South Yorkshire Railway at Mexborough West – some half mile distant from the location of the photo.

The loco appears to be 62667, in which case the date is almost certainly 3rd June 1953, the occasion being a special trip organised by the RCTS to commemorate its 25 year anniversary – one of several organised by the various local branches. This trip – the itinerary of which is given in the July 1953 *Railway Observer*, page 179 – covered mineral lines of the former LNER in South Yorkshire. I think it's fair to say the onward trip would not so much be worth paying the earth for, as absolutely priceless.

S. C. Bromhall  
Nottingham

## Bridport station

I was most interested to see Barry Norman's sketch plan of Bridport station in MRJ No. 108 as this station has long been of interest to me. I too have often thought it would make an attractive subject for a model but I simply don't have available the sixteen-odd feet that it would require. However, my 57XX pannier No. 5781 (described in MRJ No. 70) is based on photographs of the engine working on the Bridport branch in the early 1950s whilst the release, in due course, of Malcolm Mitchell's 4555 2-6-2T will allow construction of another Bridport stalwart, No. 4562, so you never know!

I would take issue, though, with Barry's assertions that the loop behind the down

platform was used to 'store carriages or park a goods train'. A 'B' set was routinely stabled on this line (known to local railwaymen as 'the back road') but I have seen or heard no evidence to suggest that goods trains were parked there. Indeed the branch passenger service was operated using two carriage sets, and when both trains were in the station platforms, the 'back road' was used by the engine of the arrival from Maiden Newton for running round the train. Whilst the Bridport branch may have been a single line in West Dorset, it was no rural retreat and the line was worked almost to its fullest capacity. As well as two carriage sets (both of which were 'B' sets) two locomotives were allocated to the shed and if the often heavy goods traffic required additional trains to be run, this had to happen after the regular service had finished for the day.

As evidence of the use of the 'back road' for running round, it may be of interest to record an unusual incident in September 1938 when driver Tommy Stickland was run over by his own engine! Details of the incident are too involved to repeat here but, briefly, the fireman had been left on his own to run the engine of an arriving train round to take its place at the head of the next departure whilst Stickland walked to the engine shed – a manoeuvre that was strictly against the regulations for engine-men to make single-handedly. For some reason, Stickland made his way along the 'back road' and he was knocked down from behind by the moving engine. Fortunately for him, he fell into the 'four foot', the engine passing over him, and he escaped without injury – except perhaps to his dignity! The engine involved was 0-6-0PT No. 7415 and at this time, two of the 74XX class were regularly allocated to Bridport, the other being No. 7408.

Barry is absolutely right when he suggests that the position of the engine shed in front of the wooden down platform canopy would make an attractive scene. The shed dated from the opening of the line in 1857 and was accordingly built to broad gauge dimensions. It remained in continuous use for 102 years until 1959 when the introduction of diesel multiple units to the line brought about its closure.

Over the years the coaling arrangements for the two engines regularly allocated there varied. Until 1936, a wooden coal stage stood between the engine shed and the water tower whilst an old grounded carriage body served as an engine-men's cabin. After removal of the coal stage, the engines were coaled by the overnight shedman directly from a wagon stabled at the back of the shed – no doubt an arduous task, but at least it saved double-handling the coal! In the early 1950s an unsightly large steel gantry, with electrically hoisted buckets, was provided which must have transformed the shedman's life and which continued in use for the remainder of the shed's existence.

Supplies to the water tank were raised by a pump housed in a small wooden hut immediately adjacent to the tank house. Until 1938, the pump was powered by steam supplied, via an overhead pipeline, from a locomotive standing in the engine shed. Connection between the pipeline and the locomotive was by a flexible hose which was fixed to the engine whistle (the whistle being first removed, of course) and the whistle valve was kept open by hanging a coal pick on the whistle chain in the cab! The steam pump had a large flywheel of nearly 6ft in diameter which was out of balance and made a considerable noise when running, so much so that complaints would be received from nearby residents in St. Andrew's Road when pumping was done at night. In 1937, however, authority was given for the pump to be converted to automatically controlled electric power, the work being done in the

following year, and the shedman's lot was thus eased.

Following nationalisation, the Bridport branch was transferred to Southern Region administration in 1950 although this continued to be worked by the Western Region and ex-GWR locomotives and carriages remained in use on the line. In 1952, due to the requirement for extensive repairs, the 'down' platform canopy was removed, and around the same time, the new administration made its mark on the station by repainting the structures in the usual SR stone and green colour scheme with all-new green and white enamelled signboards. In due course some of the signals were replaced by SR pattern upper quadrants on rail-built posts – anathema to any GWR diehard!

One final point is that on Barry's plan, he shows a group of huts in the bottom left-hand corner at the West Bay end of the station. This area was in fact occupied from the mid-1920s by an oil storage and distribution depot. Until the late 1940s, some supplies at least were received by rail and the tank wagons were stabled for unloading at the West Bay end of the 'back road' where there was a standpipe. Perhaps this is where Barry got the idea of goods trains being parked on the 'back road', but in fact the tanks would only stand there for unloading and all goods trains were marshalled in the yard on the opposite side of the running line at the Maiden Newton end of the station.

On reading all this, I realise I have rambled on somewhat – perhaps more than I should in what is essentially a model magazine – but I hope someone will find it of interest. I should like to add one thing, for what it is worth, and that is in my opinion, the 7mm scale model of GWR 4-4-0 *Sir Arthur Yorke*, shown in the last MRJ, simply has to be the finest model of a GWR locomotive ever made! The combination of the genius of Tony Reynolds and the artistry of Martyn Welch has produced a model so lifelike that I can't see how it could be bettered. Perhaps the only element missing is a wisp of steam or a dribble of water here and there, but it is wonderful to see so much time and talent expended on something so ordinary, yet so characteristically GWR, as a 'Bulldog'.

Gerry Beale  
Oxford

### Tank wagons at Faringdon (GWR)

To answer the letter from N. C. Simmons in MRJ No. 108, the explanation for the milk tanks at Faringdon in 1947 is a simple one – they were part of the routine movement of milk on the branch! My failure to remark upon this within the photo caption was a simple oversight, for which I apologise. In fact, the Faringdon branch saw movement of quite significant (although not exceptional) quantities of milk for much of its working history. In 1947, for example, some 230 milk tank wagons visited the branch. However, in the 1922 period in which my model was set, milk was, of course, moved in churns, normally in the GWR 6-wheel Siphons on lines such as the Faringdon branch. Several of these can be seen in the magnificent double-page photograph on pages 12-13 in Part 1 of my *GWR Branch Line Modelling* trilogy. This is the pattern that I tried to show on the finished model.

By the 1930s (I cannot be more exact), the Express Dairy Company had opened a small milk plant, immediately to the west of the engine shed at Faringdon. The shed ceased to be used in September 1933 and in 1935 the GWR prepared plans to convert it for use by the Express Dairy. I presume – but do not know – that this was where milk tanks were loaded as, unlike at Appleby (MRJ No. 105), there was no siding into the plant itself and no

other obvious means for loading these vehicles. It is also interesting to note that the traffic records show that milk continued to be moved in churns, after tank wagons were introduced. I presume that the volume of milk in particular orders and the distance to the destination determined how delivery was made.

Milk tanks were not, however, the only tank wagons to be seen at Faringdon. On the east side of the yard (and once, again, in the period after my layout was set) the Shell Mex Oil Company had a small depot. An extra siding had been laid by 1925 to service this facility and this can be seen, together with some of the standposts and an oil tank wagon, in the photograph on page 14 in Part 2 of the trilogy. I failed to mention this traffic in my captions too, so perhaps I can take this opportunity for a partial correction of the record?

Stephen Williams  
Stafford

### Milk depots

If I am not hogging the letters pages too much, can I pose a query which is nothing to do with model railways, but does arise from the last paragraph of W. M. Dent's letter on Appleby Milk Depot? There is an intriguing point that is not addressed, and my own recollections of shunting movements which involved passenger trains are now very hazy.

Were there any passengers in the carriages at the time of the incident? I can certainly remember being in trains, waiting at a station, and feeling the bump as additional vehicles were attached to the rear. This could have been around the late forties or early fifties. Yet I also have an impression, perhaps twenty years later, of passengers being removed from the carriages prior to backing a train. Did policy change, or was there always a distinction between vehicles being attached by the station pilot and an entire train being reversed? Can anyone clarify, please?

Raymond Gibson  
Highley  
Shropshire

### Exhibitions

I was most interested to read your editorial in MRJ No. 107, particularly regarding the Warley Show. As a demonstrator I was certainly kept busy – lots of questions about the nitty-gritty of methods, materials, adhesives, source materials, painting, suppliers; you name it, they wanted to know about it.

The interesting thing, which I've only just realised since reading your comments, was that as far I could guess, a vast majority of these people were in their mid-thirties upwards; probably the core consisted of people in their late forties with just a sprinkling of young children and teenagers.

I think this should be considered when asking ourselves about the future of the hobby and who we are attracting. I would suggest that the classic pattern of enthusiasm of the schoolboy, forgotten during the early marriage years and rekindled when the children are grown up, still applies, but because of all the pressures of work and time and space, to say nothing of the fact that people now marry and have children later, the rekindling occurs much later in life when folk are thinking about retirement and what they are going to do with the time that has hitherto been anything but free. I was most heartened to be talking to middle-aged couples where the woman was as interested as the man, and both were planning their leisure time together.

Certainly this pattern seems to occur at our local Leamington show. After our January exhibition each year, we pick up about four or five new members on average. They are nearly

all in their fifties, all very well up on railways in general, with certain particular interests, which we hope as a club we can cater for. They invariably very soon become actively involved in one of our layouts.

I work with a man, in his mid-fifties, who is most knowledgeable on railways, mainly in the diesel era, and with a great passion for Deltics. He's recently had his house enlarged to cope with his growing family. In ten years time these extra rooms will be spare, so what will he be thinking of doing then? He may well reconsider my standing invitation to come and join us in our new clubrooms one Thursday; at present he's apologetic, but he doesn't have the time.

If we want to know where future generations of modellers are coming from we should not think about who has a trainset for Christmas, but who is reading prototype magazines. I always regard a prototype enthusiast as an armchair modeller in another coat. It seems to me the question we should be asking is how many teenagers pick up *Steam Days* or *Traction* or those sort of magazines, because these are the modellers of the future. Possibly not many, and things may be bleaker than they look, but I agree with you that they certainly did not look bleak at the NEC in November.

Barry J. Fleming  
Leamington Spa  
Warwickshire

### The Warley Show

I, too, went to the NEC in November to see the excellent Warley MRC show. Congratulations to the organisers. I was very surprised at the volume of people there – and I went on the Sunday – and equally surprised at the age range of the viewing public; mostly, I think, about 25-50. Furthermore, the exhibiting layouts split about 50/50 pre- and post-1960 period, with as much attention devoted to the current image layouts as any other; indeed, the younger elements of the audience tended to be drawn by these layouts.

There were great numbers of stalls selling a wide range of kits, bits, etc, all sorts of societies, and a diverse array of groups furthering the cause of this scale or that gauge. Never, I dare to say, has railway modelling been so prolific!

We're awash with detailed and readable books and magazines on all aspects of railways, modelling and related topics, from the turn of the century right up to date – vastly more so than twenty or thirty years ago. There's hardly anything railway related that hasn't been written about, plans drawn, models or kits produced. Compared with Edward Beal and John Ahern we certainly are in broad, sunlit uplands; perhaps we've reached a zenith?

Personally, I find today's railway a boring and depressing place. Mass transit is an apt description whether of people or freight. But the challenge to model, effectively, is still there. For me, I prefer to be transported back to the days when time wasn't quite of the essence – a rosy-tinted view perhaps, but one that I find most appealing.

Tomorrow's new modellers probably won't be initiated with Christmas trainsets. My eleven year old wants a play station not to play stations. No, tomorrow's modellers will be twenty- or thirty-somethings with a disposable income, a house, etc, looking for a different challenge. They'll come to shows out of curiosity, get inspired, buy a kit and have a go. Railway modelling has grown up and become sophisticated. The future of our hobby is not in encouraging the kids, it's about marketing the hobby to the right type of person – and shows like the NEC/Warley MRC do just that.

Rick Howell  
Falmouth  
Cornwall

# DIARY

## MARCH

- 6 International Model Railway Show at Moulton Secondary School, Pound Lane, Northampton. 10.30 – 5.0. £1.50/75p/£4.00. Presented by the PTA in aid of school funds.
- 6 Chesham Model Railway Club exhibition at White Hill Centre, Chesham, Bucks. 10.00 – 5.00. £2.00/£1.00/£5.00.
- 6/7 East Midlands Model Railway Exhibition at the Oval Hall, Victoria Leisure Centre, Sneinton Square, Gedling Street, off Bath Street, Nottingham. 9.30 – 6.30 (5.30 Sun). £3.20/£1.00/£2.20/£7.40.
- 6/7 Brighouse Model Railway Society exhibition at The Assembly Rooms, Brighouse, West Yorkshire. 10.00 – 6.00 (5.00 Sun). £2.50/£1.20/£6.00.
- 6/7 Romsey & District Railway Modellers Society exhibition at Crosfield Hall, Broadwater Road, Romsey (between the town centre and the bypass). 10.30 – 5.00 (Sat), 10.00 – 4.30 (Sun). £2.00/£1.00/£5.00.
- 6/7 Heywood Model Railway Group exhibition at Whitworth Civic Hall, Whitworth, Rochdale, Lancs. 10.00 – 7.00 (5.00 Sun). £2.00/£1.00/£5.00.
- 7 West Sussex O Gauge Group exhibition at Shoreham Community Centre, Pond Road, Shoreham, West Sussex. 11.00 – 5.00. £1.50/£1.00/£3.00.
- 13 Wealden Railway Group Personal Layout Show at WRVS Hall, South Street, Lancing, West Sussex. 10.00 – 4.30. £1.50/50p/£1.00.
- 13 Witham Model Railway Society and Talyllyn Railway Preservation Society open day at British Legion Hall, Newland Street, Witham, Essex. 10.30 – 4.00. £1.00/accompanied children free.
- 13 Gauge O Guild Spring Convention at Oasis Leisure Centre, Swindon. 10.00 – 5.00. Members £3.00, non-members £5.00. All tickets are family tickets.
- 13 Luton Model Railway Club exhibition at Stopsley High School, St. Thomas Road, Luton, Beds. 10.30 – 5.30. £2.50/£1.50/£6.00.
- 13 Northampton & District Model Railway Club exhibition at Abbey Centre, Hunsbury Hill (adjacent Tesco), Northampton. 10.00 – 5.00. £2.50/£1.50/£6.00.
- 13 Ashford Group of the Kent & East Sussex Railway exhibition (sponsored by Railtrack PLC) at The Centrepiece, Bank Street, Ashford, Kent. 10.00 – 5.00. £2.00/£1.00/£1.50/£5.00.
- 13 North Downs Model Railway Circle Woodmansterne 99 exhibition at St. Peter's Church Hall, Chipstead Way, Woodmansterne, Surrey. 10.00 – 5.00. £2.50/£1.50/£6.00.
- 13/14 Wyre Forest Model Railway Club, Kidderminster exhibition at Forest Glades Leisure Centre, Bromsgrove Street, Kidderminster. 10.00 – 5.00. £3.00/£1.50/£7.50.
- 13/14 Birtley Model Railway Engineers exhibition at the Community Centre, Ravensworth Road, Birtley, Tyne and Wear. 10.30 – 5.00. £1.50/70p.

13/14 Basingstoke & North Hants MRS exhibition at The Vyne Community School, Vyne Road, Basingstoke, Hants. 10.00 – 5.00 (4.00 Sun). £2.50/£1.00/£6.00.

13/14 St. Neots Model Railway Club East Anglian Model Railway Exhibition at Ernulf School, Barford Road, Eynesbury, St. Neots, Cambridgeshire. 10.00 – 5.00 (4.00 Sun). £2.00/£1.00/£5.00.

20 South Hants Model Railway Club 30th annual exhibition at Lake Road Masonic Hall, Lake Road, Portsmouth. 10.30 – 5.00. £2.50/£2.00/£1.50/£6.00.

20 Abingdon & District Model Railway Club exhibition at Abbey Hall, Abbey Close, Abingdon. 10.00 – 5.00. £2.00/£1.00/£5.00.

20/21 Stafford Railway Circle exhibition at Weston Road High School, Stafford. 10.00 – 6.00 (5.00 Sun). £3.00/£1.60/£8.00.

20/21 Stockport & District Railway Modellers exhibition at The Town Hall, Market Street, Hyde, Cheshire. 10.00 – 5.00. £2.00/£1.00/£5.50.

20/21 Ilford & West Essex MRC 42nd exhibition at The University of East London (Barking Campus), Longbridge Road, Barking, Essex. 10.00 – 6.00 (5.00 Sun). Admission prices not advised.

21 Talyllyn Railway Preservation Society Wessex Area Group exhibition at the Ferneham Hall, Osborn Road, Fareham, Hants. 10.15 – 5.00. £2.50/£1.50/£7.00.

27 Wealdon Model Railway Club exhibition at Vale Royal Methodist Church Hall, Vale Road, Tunbridge Wells, Kent. 10.15 – 5.00. £1.80/90p/£4.50.

27 Tring & District Model Railway Club exhibition at The Red Cross Hall, Tring, Herts. 10.30 – 5.00. £1.00/50p/£2.50.

27 Whitstable Model Railway Exhibition at United Reformed Church, Middle Wall, Whitstable, Kent. 10.00 – 5.00. £1.75/£1.25/£1.00/£4.50.

27/28 Scalefour North at Wakefield College, Thornes Park, Wakefield. 10.30 – 6.00 (Sat), 10.00 – 4.00 (Sun). Members £2.00, non-members £3.00.

27/28 Epsom & Ewell Model Railway Club The Epsom Show at North East Surrey College of Technology, Reigate Road (A240), Ewell. 10.00 – 6.00. (5.00 Sun). £3.00/£2.00/£1.50/£7.50.

27/28 Widnes North Model Railway Group exhibition at Queens Hall, Victoria Road, Widnes. 10.00 – 6.00 (5.00 Sun). £2.40/£1.50/£6.00.

## APRIL

2–4 Furness Model Railway Club Easter Model Railway & Transport Exhibition at Forum 28, Duke Street, Barrow in Furness, Cumbria. 12.00 – 6.00 (Fri), 10.00 – 6.00 (Sat), 10.00 – 5.00 (Sun). £2.40/£1.20.

3–6 York Model Railway Show at the new Knavesmire Stand, York Racecourse. 10.00 – 6.00 (Sat), Noon to 5.00 (Sun), 10.00 – 6.00 (Mon), 10.00 – 5.00 (Tues). £5.00/£3.00/£13.00.

9–11 Macclesfield Model Railway Group exhibition at Ryles Park School, Ryles Park Road, Macclesfield. 5.00 – 9.30 (Fri), 10.00 – 6.00 (Sat), 10.00 – 5.00 (Sun). £2.50/£1.50/£6.00.

10 The Class 47 Locomotive Society Croydon Transfair 99 – transport enthusiasts and collectors fair at St. Peter's Hall, Ledbury Road, Croydon, Surrey. Times not advised. £1.00/50p.



SCALEFOUR NORTH

### Saturday and Sunday 27th & 28th March 1999

Saturday 10.30 a.m. – 6.00 p.m.  
Sunday 10.00 a.m. – 4.00 p.m.

at Wakefield College, Thornes Park,  
Wakefield

£2 for Scalefour Society members  
£3 for non-members

### LAYOUTS:

Amlwch – a fine model of the Anglesey branch terminus as it might have been in 1977 if the line had not been closed to passenger traffic in 1964.

Bolsover – Bob Barrott's model of a Midland Railway branch through station in LMS days.

Brockley Hill – an imaginary extension of

the LNWR Stanmore branch based in the pre-Grouping era.

Fulham Imperial Road – a two-level layout featuring a high level station and a low-level goods yard based in West London in the BR steam period.

Grafton – Steve Lee's marvellous M&SWJR model set in the winter of 1910.

Halifax King Cross – Steve Hall's BR period layout set in West Yorkshire caused quite a stir when it was featured in MRJ No. 98.

Laxfield – John Watson's lovely model of the Mid-Suffolk Light Railway branch terminus.

Mile End Road – Don Mensforth's BR period layout features a lot of operational interest, plus a dock with real water!

*Demonstrations, lectures and trade support.*



- 10/11 **Heathcote O Gauge Society** exhibition at Humphrey Perkins High School, Cotes Road, Barrow upon Soar, Nr. Loughborough, Leicestershire. 10.30 – 5.00. £2.20/£1.00/£6.00.
- 10/11 **Crawley Model Railway Society** exhibition at Tanbridge House School, Guildford Road, Horsham, West Sussex. 10.00 – 5.00 (4.30 Sun). £3.25/£1.60/£8.50.
- 17 **East Grinstead Model Railway Club** exhibition at the Chequer Mead Arts Centre, De la Warr Road, East Grinstead, West Sussex. 10.00 – 5.30. £2.00/£1.00/£5.00.
- 17/18 **East Anglian Railway Museum (South West Essex Branch)** 25th anniversary exhibition at the Marshalls Park Upper School, Havering Drive, Romford, Essex. 10.00 – 5.30 (4.30 Sun). £3.00/£2.00/£1.50.
- 18 **Salisbury & South Wilts Railway Society** exhibition at Michael Herbert Hall, South Street, Wilton, Salisbury, Wilts. 11.00 – 5.00 (Sat), 10.00 – 4.00 (Sun). £2.50/£1.50/£7.00.
- 18 **Winchester 'O' Gauge Group** exhibition at Henry Beaufort School, East Woodhay Road, Harestock, Winchester. 10.30 – 4.30. £2.00/£1.00.
- 18 **Stowmarket Railway Club** exhibition at Mid Suffolk Leisure Centre, Gainsborough Road, Stowmarket. 10.30 – 5.00. £2.00/£1.00/£5.00.
- 24 **Staines Finescale Exhibition** at Staines Methodist Church, Thames Street, Staines, Middlesex. 10.30 – 5.00. £3.00/£2.00/£8.00.
- 24/25 **North Down Model Railway Society** exhibition at Bangor Leisure Centre, Bangor, Northern Ireland. 11.00 – 6.00 (Sat), 1.00 – 5.00 (Sun). £1.50/50p.

## YORK MODEL RAILWAY SHOW

**Easter 1999 – 3rd-6th April  
at the new Knavesmire Stand,  
York Racecourse**

**Saturday & Monday – 10.00 to 6.00**

**Sunday – Noon to 5.00**

**Tuesday – 10.00 to 5.00**

**Admission: £5.00 adults**

**£3.00 Children & Concessions**

**£13.00 Family (2 adults + 2 children)**

**LAYOUTS include:** Twelve 7mm (eight finescale, one ScaleSeven and three narrow gauge), nineteen 4mm (three 18.83, three EM, eleven OO, and two 4mm NG), four 3mm (one of which is Continental), one HO American, one 2mm Finescale, four N gauge, one 1/8in scale, and one 5.5mm NG.

**Over 45 trade displays.**

**Demonstrations by**

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**Stands by specialist societies.**

## HISTORICAL MODEL RAILWAY SOCIETY

**Bedford Area:** 31st March 1999. 7.30 at the Addison Centre, Kempston. 'Etched brass kits' – D. Smith.

**Bristol Area:** 20th March 1999. 2.30 at the Wansdyke Room, Saltford Hall, Saltford, near Bristol. 'Transatlantic Trains' – Cyder Belt Group.

**East Midlands Area:** 7.30 at the William IV, Sutton Road, Mansfield.

**10 March 1999.** 'Private Owner Mineral Wagons' – D. Larkin.

**14th April 1999.** 'Modelling in Plastikard' – G. Kent.

**Essex Area:** 7.45 at St. Mary's Church Centre, Great Baddow, Chelmsford.

**26th February 1999.** 'Private Owner Mineral Wagons' – D. Larkin.

**26th March 1999.** 'Stratford Running Shed, part 4' – S. Hinbest.

**London Area:** 6.30 at the Recruitment and Development Centre, Friars Bridge Court, Blackfriars Road, London SE1.

**1st March 1999.** 'Private Owner Mineral Wagons' – D. Larkin.

**6th April 1999.** 'Caledonian Railway part 2' – N. Ferguson.

**North West Area:** 8.00 at the ESWA Club, Park Road South, Birkenhead, Wirral.

**4th March 1999.** 'Modelling the American Railroads' – J. Etheridge.

**1st April 1999.** '18.83 gauge running track night'.

**Sussex Area:** 7.15 at London Road Station, Brighton.

**11th March 1999.** 'Coaches, part 3 – further work on Great Western stock' – M. Brockman.

**8th April 1999.** 'Somerset & Dorset modelling' – T. Sullivan.

**Worcester Area:** 7.30 at The Cherry Orchard Centre, Orchard Street, Worcester.

**10th March 1999.** 'Great Central Railway's London Extension, 1899-1966 – S. Banks.

**14th April 1999.** 'Some reflections of the GWR Central Wales Division' – R. Lycett-Smith.

## STAINES FINESCALE EXHIBITION

*Sponsored by Steam Age and Set Scenes*

**Saturday 24th April 1999**

**10.30 a.m. to 5.00 p.m.**

**at Staines Methodist Church,**

**Thames Street, Staines, Middlesex**

**(adjoins riverside car park)**

**Admission: £3.00 adults, £2.00 child/OAP,  
£8.00 family (2 adults + 2 children)**

**LAYOUTS:** Albion Street (P4), Beckley Tramway (P4), Bodesmeer (P87), Dyke Station (P4), Ferring (P4), Wenfordbridge (2mm), ZOB Pz (Z).

*Demonstrations and trade support.*

*Proceeds to the Save the Children Fund.*

## MRJ CROSSWORD RESULTS

The seventh MRJ Crossword has brought forth a deluge of entries to the annual challenge. The first three correct entries drawn from the hat came from: Philip Holme of Devizes, M. J. Pickering of Hamilton, and Peter Umpleby of Leeds, all of whom win a year's free subscription to MRJ or its equivalent in Wild Swan books.

Most grief was experienced with 25 Down – the correct answer being 'wildswan' – with alternatives such as 'windgear' or 'diedaway' being offered, without adversely affecting neighbouring answers. Minor errors cropped up with 28 Across 'woken', with 'waken' used instead, and 24 Down 'sanded' with 'sander' in its place. As usual, much entertainment was to be found within the cryptic comments attached to the backs of several entries. Describing the puzzle as 'this little dose of torture' was one gem, whilst 'a pleasant five minutes – took me nearer five days!' seemed the general response this year.

Well done to those who also sent in the correct solutions, or who got pretty close: Alan Hawkins, Fareham; J. R. Snowdon, West Drayton; Martin Tester, Cambridge; Keith Slater, Walthamstow; C. G. Thomas, Stourport-on-Severn; Steve Hall, Leeds; Dan Randall, Slough; Stephen Harris, Leighton Buzzard; Richard M. Syms, Warrington; Mike Ainsworth, Teynham; Brendan Walsh, Burton-on-Trent; C. J. Copplestone of Ruttenburg, Germany; P. A. Dean, Bideford; Phil Copplestone, Diss; Tim Hall, Bristol; David S. Thompson, Skene; M. N. Lawton, High Peak; J. Douglas Smith, Weybridge; Nick Stanbury, Brighton; Chris Plested, Guildford; Ted Robinson, Leighton Buzzard; B. Pickering, Morecambe; Rod Garner, Gt. Torrington; Roy Godderham, Cuckfield; Dr. E. O. Ashworth, Nottingham; Neil J. Knowlden, West Wickham; David Morgan, Sandbach; Alan Garner, Haywards Heath; R. M. Jones, Heswall; J. England, Weston-super-Mare; Roger Lycett-Smith, Worcester; and Mike Edwards of Evesham.

Finally, attached to one of the entries was this dreadful offering from Dan Randall, telling us of the crossword compiler who died – he was buried 6 Down and 2 Across . . .



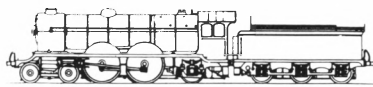
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Photo: Barry Norman - Reproduced by courtesy of Wild Swan Publications Ltd.

Sat. 10.30-18.00 / Sun 10.00-16.00. Admission £3.00 / Society Members £2.00

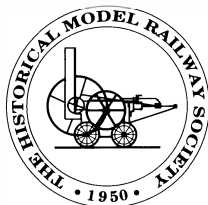
For more information about the Scalefour Society,  
please contact the Membership Secretary:

Brian Pearce,  
5 Cedar Close, TEIGNMOUTH,  
Devon, TQ14 8UZ  
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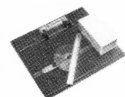


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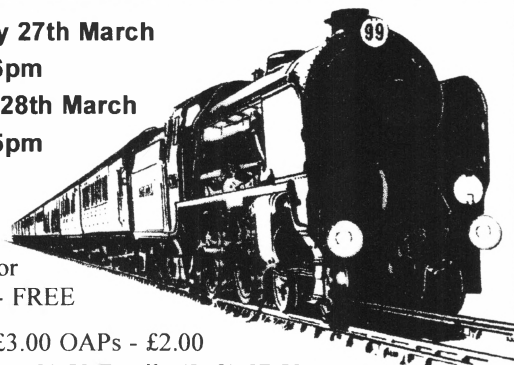
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10am - 6pm

Sunday 28th March

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